



FLOOD RISK ASSESSMENT

3 Lower Marsh BA12 9PB

Reference: 536 FRA-v3

Jul-25

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Purpose of this report

- 1.1 Urban Water has been appointed to undertake a Level 2 – Scoping Study Flood Risk Assessment for a development located at BA12 9PB .

Objectives

- 1.2 The objectives of this FRA are to demonstrate the following:
- Whether the proposed development will likely be affected by current or future flooding.
 - Whether the proposed development will increase flood risk elsewhere.
 - Whether the flood risks associated with the proposed development can be satisfactorily managed.
 - Whether the measures proposed to deal with the flood risk are sustainable.

Documents Consulted

- 1.3 To achieve these objectives, the following documents have been consulted and referenced:

The National Planning Policy Framework (NPPF)
CIRIA C753 document The SuDS Manual, 2015
Local Flood Risk Management Strategy (LFRMS)
Level 1 Strategic Flood Risk Assessment (SFRA)
Aerial photographs and topographical survey of the site
British Geological Society Records
Local Council flood Maps
Environment Agency flood maps
The CIRIA publication 'C635 Designing for exceedance in urban drainage Good practice'



Development Site and Location

- 2.1 The site is located at Lower Marsh Road, Warminster. The nearest postcode is BA12 9PB . Refer to appendix A for site location plan.
- 2.2 The current use of the site is an existing series of continuous stables. The current user vulnerability classification of the site is More vulnerable . The site is located in the River Flood Zone 2. Refer to Appendix B for more details.

Development Proposals

- 2.3 The proposed development includes the development of a new dwelling adjacent to existing stables, and the change of use of the existing stables into residential dwellings. Refer to Appendix B for the layout of the proposed development.
- 2.4 The vulnerability classification of the proposed development is More vulnerable with an estimated lifetime between 50 and 100 years.

Site Hydrology and Hydrogeology

- | | | |
|------------------------|-----|---|
| Hydrology | 2.5 | The River Wylfe effluent is located approximately 30 m away from the development. |
| Aquifer | 2.6 | The development is located within a secondary aquifer type A. Aquifers type A consist of permeable layers capable of supporting water supplies at a local rather than strategic scale. They are generally aquifers formerly classified as minor aquifers. |
| Source Protection Zone | 2.7 | The site is not located within a Source Protection Zone. |
| Groundwater Levels | 2.8 | The ground water levels for this site are unknown. |



Site Geology

- | | | |
|----------------------|------|--|
| Bedrock | 2.9 | The British Geological Survey records of the site show that it is located within the Cann Sand Member - Sandstone. |
| Superficial Deposits | 2.10 | The British Geological Survey records show that the superficial deposits are Alluvium - Clay, Silt, Sand and Gravel. |



National Planning Policy Framework (NPPF)

- 3.1 The NPPF and its technical guidance is a set of planning policies with the key objective of contributing to sustainable development. As part of it, they ensure that flood risk and sustainability are considered during the planning process. This ensures that developments are not located in flood risk areas and directs developments to lower risk areas. The NPPF applies a sequential risk-based approach to determining land suitability for development in flood risk areas. The NPPF also encourages developers to seek opportunities to reduce the overall level of flood risk through the development layout and the application of Sustainable Drainage Systems (SuDS).

The Flood and Water Management Act (2010)

- 3.2 The Flood and Water Management Act aims to reduce the flood risk associated with extreme weather events. It provides robust flood risk management for people, homes and businesses and encourages using SuDS for developments. A robust SuDS strategy should consider the recommendations in this Flood Risk Assessment.

Strategic Flood Risk Assessment (SFRA)

- 3.3 Planning policy with regard to development and flood risk in the area is detailed in the Level 1 Strategic Flood Risk Assessment (SFRA) which was published in 2019. The proposed development site is located within the administrative boundary of the Wiltshire Council.
- 3.4 The SFRA commits to direct new development to locations at the lowest flood risk. The SFRA provides information on the levels and flood hazards that could result from flooding. The Environment Agency flood zone maps and the SFRA ignore the presence of existing flood defences when defining the potential extent of flooding.
- 3.5 This report follows the guidance given in the Level 1 Strategic Flood Risk Assessment by evaluating the flood risk and providing relevant flood mitigation.



- 4.1 The NPPF guidance states that the sequential test "is designed to ensure that areas at little or no risk of flooding from any source are developed in preference to areas at higher risk. This means avoiding, so far as possible, development in current and future medium and high flood risk areas considering all sources of flooding including areas at risk of surface water flooding."

Applicability of the Sequential Test

- 4.2 The flood risks were determined by identifying all the sources of flooding and assessing their possible impact and likelihood to development. It is confirmed that the development is:

- In Flood Zone 2/3, based on the Planning Flood Risk Map
- In Flood Zone 2, based on the Flood Level information Provided by the Environment Agency
- At Low risk of surface flooding
- At high risk of groundwater flooding
- Outside of a critical drainage area
- Outside of an area with sewer flooding

- 4.3 Due to the flood risk on the development, a sequential test is required. For this development, the sequential assessment was completed for the area within the red line of the planning application. The development has been located at the lowest flood risk. Regarding looking at other reasonably available sites, it is unlikely that other areas are available in lower flood risk probability as the development is small and can only be located within the proximity of the existing land use and land ownership. It is concluded that the current proposals pass the sequential test.



Exception Test

- 4.4 Fluvial flood risk was assessed using the Environment Agency Flood Zone Maps and the sequential risk-based approach recommended in the NPPF guidance. The exception test requirement considers the flood risk vulnerability of land uses about the flood zone categorisation. These parameters are assessed to determine whether the development requires an exception test or is inappropriate.
- Step 1**
Flood Zone categorisation
- 4.5 The proposed development falls within The Environment Agency (EA) Flood Zone 2. The Flood Zone 2 is considered to have a medium probability of flooding with a 1000 to 100 years annual probability or 0.1-1.0%AEP.
- Step 2**
Flood risk vulnerability
- 4.6 Within Table 2 (Flood Risk Vulnerability Classification) of the NPPF Planning Practice Guide, the proposed development is classified as 'More vulnerable '.
- Step 3**
Flood Zone incompatibility
- 4.7 The Flood Risk vulnerability and Flood Zone incompatibility table of the NPPF Planning Practice Guide states that More vulnerable developments do not require an exception test in this area.

The Exception Test

- 4.8 The exception test is not required.



- 5.1 The development has been assessed for the following potential flood risks, river and tidal flood risk, surface water flooding, flooding from groundwater, reservoir flood risk and drainage systems.

Flood Defence and Historic Flooding

- 5.2 The Environment Agency records show that the site does not benefit from flood defences. They also show that the area around the site has not been flooded in the past. See Appendix C for details.

Flooding from river and sea

- 5.3 The site is affected by River Flooding. The proposed development falls within The Environment Agency (EA) Flood Zone 2. The Flood Zone 2 is considered to have a medium probability of flooding with a 1000 to 100 years annual probability or 0.1-1.0%AEP.
- 5.4 The climate change allowance has been taken from the EA peak river flow map. The vulnerability of the development, the design life of the building, and the flood zone classification were used to determine it. The climate change allowance for this site is 38%. The nearest climate change allowance of 40% provided by the EA was used as the most representative to complete this assessment.
- 5.5 The levels provided by the Environment Agency are shown in table 1 below. Further details are provided in Appendix D.

Flood levels in channel		Flood levels at Site	
Return Period	Flood Level (m AOD)	Return Period	Flood Level (m AOD)
1 in 20 (5%)	109	1 in 20 (5%)	NIL
1 in 30 (3.3%)	109.1	1 in 30 (3.3%)	NIL
1 in 100 (1%)	109.08	1 in 100 (1%)	110.18
1 in 100 + 40%(CC)	109.22	1 in 100 + 40%(CC)	NIL
1 in 1000 (0.1%)	109.32	1 in 1000 (0.1%)	110.33



- 5.6 The river flood risk level based on the Product 4 (Appendix D) is 110.18m AOD. The river flood level based on the < 1% AEP from the rofrs_cc01_4band dataset is conservatively taken as 110.60 mAOD (refer to Appendix C). This is the level used for determining the finished floor level.

Surface water (overland flows) flood risk

- 5.7 The Environment Agency maps show that the flood risk from surface water is low. A residual risk of localised shallow ponding remains likely. The Environment Agency surface water flood risk maps are defined by applying a specific procedure based on digital terrain models and assumptions regarding infiltration and urban drainage losses. The surface water flood maps are determined by the Environment Agency as follows:

- 5.8 *"The nationally produced surface water flood mapping only indicates where surface water flooding could occur due to local rainfall. It does not fully represent flooding that occurs from:*
- Ordinary watercourses*
 - Drainage systems or public sewers caused by catchment-wide rainfall events*
 - Rivers*
 - Groundwater*

Due to the modelling techniques, the mapping picks out depressions in the ground surface. It simulates some flow along natural drainage channels, rivers, low areas in floodplains, and flow paths between buildings. Although the maps appear to show flooding from ordinary watercourses, they should not be taken as definitive mapping of flood risk from these as the conveyance effect of ordinary watercourses or drainage channels is not explicitly modelled. Also, structures (such as bridges, culverts and weirs) and flood risk management infrastructure (such as defences) are not represented.

The nationally produced surface water flood mapping does not consider the effect of pumping stations in catchments with pumped drainage. No allowance is made for tide locking, high tidal or fluvial levels where sewers cannot discharge into rivers or the sea."

- 5.9 The strategic flood risk for the Wiltshire Council confirms that the flood risk for the site is Low. The surface water flood data has not been produced to determine the flood levels at individual properties. This data does not contain



the climate change allowances for depth levels. Therefore, the Design flood level given below is an assumption. The new development may have greater or lower surface water flood depths.

- 5.10 Based on the Environment Agency and the Strategic flood risk assessment's surface water mapping, together with the presence of surface water drainage systems at the site and surrounding area, it is concluded that the site is at Low risk of flooding from surface water sources. The depth of water is potentially below 300mm. For this assessment, a depth of water of 0.15m has been taken as the most appropriate depth to the site. The average ground level at the site is 110.25m AOD. The surface water flood level on this site could be in the region of 110.4m AOD.

Flooding from drainage systems in adjacent areas

- 5.11 The council records have been reviewed. The flooding from drainage incidents maps were not found in the Strategic Flood Risk Assessment. Therefore, for the purpose of this report, it has been assumed that the risk of flooding from drainage systems is low.

Reservoirs Risks

- 5.12 The Reservoir Flood Map (RFM) produced by the Environment Agency does not show the risk to individual properties of dam breach flooding. The maps do not indicate or relate to any particular probability of dam breach flooding. The maps were prepared for emergency planning purposes. They can be used to help reservoir owners produce on-site plans, and the Local Resilience Forum produce off-site plans and to prioritise areas for evacuation/early warning in the event of a potential dam failure. The RFM shows that the development could be outside of the possible dam breach flooding path. See Appendix C.

Groundwater flood risk

- 5.13 The British Geological Survey's flood risk susceptibility maps show that the



development has the potential for groundwater flooding above ground level. Groundwater levels vary seasonally and are influenced by ground and meteorological conditions and proximity to water features. The groundwater flooding risk for this site is considered to be high. The groundwater flood depth could potentially be 0.15m. The average external level at the site is 110.25m AOD. The potential groundwater flood level is 110.4m AOD. This level has been given as a precautionary measure. It is recommended that monitoring of groundwater is undertaken should this measure be reviewed. Refer to Appendix C for record drawings.

Critical Drainage Areas

- 5.14 The Strategic Flood Risk Assessment was reviewed as part of this assessment. However, it does not show the critical drainage areas within the council. For this report, it has been assumed that the site is outside of a notified critical drainage area.



6.1 The Flood hazard assessment has demonstrated that the site is:

- In Flood Zone 2/3, based on the Planning Flood Risk Map
- In Flood Zone 2, based on the Flood Level information Provided by the Environment Agency
- At Low risk of surface flooding
- At high risk of groundwater flooding
- Outside of a critical drainage area
- Outside of an area with sewer flooding

6.2 Under the NPPF it is necessary to demonstrate that, for any new development on the site, it is possible to provide an adequate level of flood protection for personnel working or living at the development.

Design Flood Level

6.3 The design flood level is the maximum estimated water level during the design storm event including an allowance for climate change in line with current best practice and the national planning policy guidance.

6.4 The Design Flood Level for this development has been determined by evaluating the levels from the Fluvial/Sea, Surface Water and Groundwater flood levels.

6.5 For this site, the Design Flood Level is 110.6m AOD. This is the highest level and corresponds to the Fluvial Water Flood Level.

Flood Protection

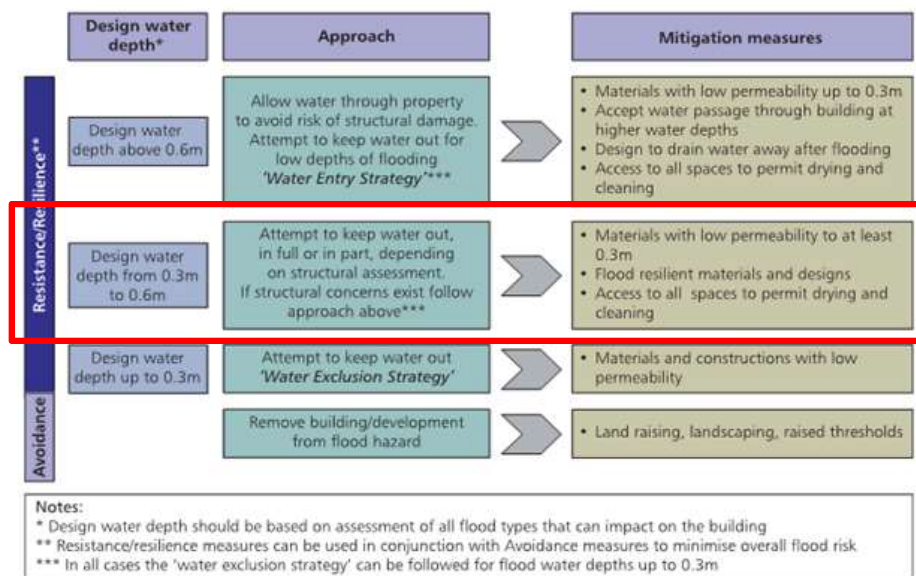
6.6 The National Planning Guidance standing advice and Environment Agency recommends that where possible, flood avoidance is provided by establishing the development's finished floor level 600mm above (freeboard) the design flood level. However, this level can be reduced if there is a high level of certainty about the estimated flood level. For this site the estimated free board has been determined to be 0.3m above the Design Flood Level due to the quality of the flood risk information



available and the type of risk. The finished floor should be 110.9m AOD. The average level on site is 110.55 m AOD, so it is assumed the existing dwelling finished floor level is 110.9 m AOD is feasible and therefore would comply with the recommended finished floor level.

- 6.7 It is possible to achieve this FFL of 110.9 m AOD for any proposed extensions. As the foundations and other parts of the building may be in contact with water, the following flood mitigation is proposed.
- 6.8 The flood mitigation strategies for the development has been based on the CLG 2007 Improving the Flood Performance of New Buildings. See the figure below for the strategy highlighted in red. The strategy is based on the water level within the proximity to the building.

Rationale for flood resilient and/or resistant design strategies



- 6.9 The design water depth for this site is 0.15m. The development should utilise building materials that are suitable for a 'water exclusion strategy'. Materials classified as "Good" (highlighted in red) in the Figure below shall be used for new construction up to 111.20m AOD.



Flood resilience characteristics of building materials (based on laboratory testing)

Material	Resilience characteristics*		
	Water penetration	Drying ability	Retention of pre-flood dimensions, integrity
Bricks			
Engineering bricks (Classes A and B)	Good	Good	Good
Facing bricks (pressed)	Medium	Medium	Good
Facing bricks (handmade)	Poor	Poor	Poor
Blocks			
Concrete (3.5N, 7N)	Poor	Medium	Good
Aircrete	Medium	Poor	Good
Timber board			
OSB2, 11mm thick	Medium	Poor	Poor
OSB3, 18mm thick	Medium	Poor	Poor
Gypsum plasterboard			
Gypsum Plasterboard, 9mm thick	Poor	Not assessed	Poor
Mortars			
Below d.p.c. 1:3(cement:sand)	Good	Good	Good
Above d.p.c. 1:6(cement:sand)	Good	Good	Good

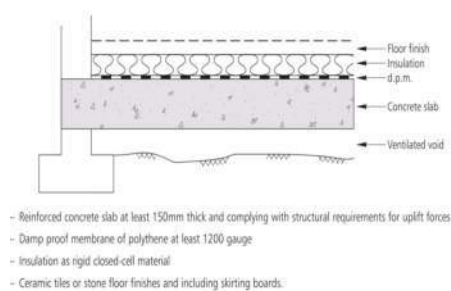
*Resilience characteristics are related to the testing carried out and exclude aspects such as ability to withstand freeze/thaw cycles, cleanability and mould growth

- 6.10 New services and fittings (communications wiring, heating systems, electrical services, water, electricity and gas meters) should be placed at above the level of 111.25m AOD. All service entries should be sealed (e.g. with expanding foam or similar closed cell material).
- 6.11 Closed-cell insulation should be used for pipes. Sealed PVC external framed doors or good fit and sealed wooden frames should be used. Hollow core timber internal doors should not be used unless sufficient flood warning is given, butt hinges, can be used to allow internal doors to be easily removed and stored. Carpets are to be avoided and use of tiles recommended in floor below the predicted design flood level.
- 6.12 Fittings should be designed to be replaced after a flood, it is advisable to specify durable fittings that are not appreciably affected by water and can be easily cleaned (e.g. use of plastic materials, or stainless steel). The cost of these units may need to be balanced against the predicted frequency of flooding. Avoid wood fiber based carcasses and use easily removable solid wood doors and drawers.
- 6.13 On new foundations or where they are being replaced: Suspended concrete floor slab at least 150mm thick is preferred. Beam and Block slabs with geomembrane and 75mm min screed can also be used. There should be a minimum space of 150mm ventilated void between the

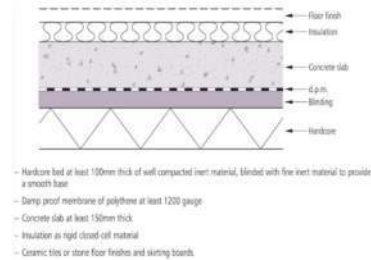


ground level and the bottom of the floor slab. Damp-proof membranes should be included in the design. Floor insulation should be of the closed-cell type. Underfloor services using ferrous materials should be avoided. Ceramic/concrete-based floor tiles, sitting on a bed of sand, cement render and water-resistant grout can be used. Ground bearing slabs are also an option. See the figures below.

Suspended Concrete Slab detail



Ground bearing Concrete Slab detail

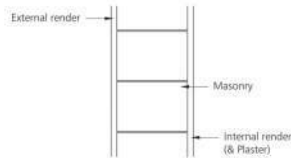


6.14 Concrete blocks used in foundations should be sealed with an impermeable material or encased in concrete to prevent water movement from the ground to the wall construction. In new walls use extended periscope subfloor ventilators or fit removable airbrick covers; fix plasterboard sheets horizontally rather than vertically, or split sheets mid-height with a dado rail, to reduce the extent of replacement; specify lime- or cement-based renovating plasters or renders rather than gypsum-based, with water-resistant paint finishes. The use of water-proof, water-resistant or micro-porous surface coatings on masonry should be avoided as they can inhibit the drying-out of the building fabric.

6.15 Good quality facing bricks or external renders with water-repellent properties can be used for the external face. See the examples below of external walls that can be used.

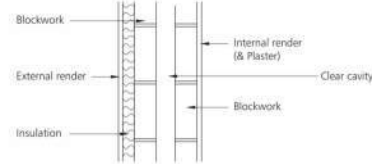


Solid External Wall



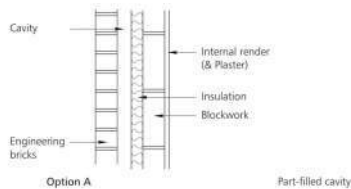
- External cement based render, preferably with lime content. Composition depends on masonry. The following mixes have good resilient properties:
 - 1 cement : 6 sand on bricks;
 - 1 cement : 4 sand: 1/2 lime on concrete blockwork or bricks;
 - 1 cement : 6 sand: 1 lime on Aircrete blocks.
 - Masonry with minimum thickness of 300mm (thin mortar joint construction using Aircrete blocks is effective as demonstrated in laboratory tests) or alternatively reinforced concrete wall
 - Internal cement-based render, preferably with lime content. Composition depends on masonry; the following mix is effective for flood resilience:
 - 1 cement : 6 sand: 1 lime on Aircrete.
- Apply external and internal renders, following good practice guidance, ensuring minimum total thickness of 20mm and at least two coats.
- Use external insulation in preference to internal insulation.

Cavity External Walls – Clear cavity



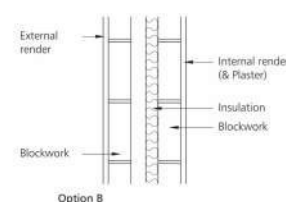
- Clear cavity**
- External cement based render, preferably with lime content. Composition depends on masonry; the following mixes are effective for flood resilience:
 - 1 cement : 4 sand: 1/2 lime on concrete blockwork (or bricks);
 - 1 cement : 6 sand: 1 lime on Aircrete.
 - Apply render following good practice guidance, ensuring minimum total thickness of 20mm and two coats.
 - Internal cement based render, preferably with lime content. Composition depends on masonry. The following mix works well:
 - 1 cement : 6 sand: 1 lime on Aircrete.
 - Stainless steel wall ties should be used to minimise corrosion and consequent staining.

Cavity External Walls- Part fill Option A



- Part-filled cavity – Option A**
- External face consisting of engineering bricks up to required level for flood protection (up to 0.6m maximum above floor level plus one course). Other external facing materials can be used above this level, but ensure interface is watertight.
 - Rigid insulation.
 - Internal face consisting of blocks.
 - Internal cement based render, preferably with lime content. Composition depends on masonry; the following mix is effective:
 - 1 cement : 6 sand: 1 lime on Aircrete.
 - Ensure stainless steel wall ties are used to minimise corrosion and consequent staining.
 - Sacrificial plasterboard can be used, but it needs to be removed between ground floor and flood level. The board should be fitted horizontally to make removal easier. In some cases a dado rail can be used to cover the joints.

Cavity External Walls- Part fill Option B



- Part-filled cavity – Option B**
- External cement based render, preferably with lime content. Composition depends on masonry; the following mixes are effective:
 - 1 cement : 4 sand: 1/2 lime on concrete blockwork
 - 1 cement : 6 sand: 1 lime on Aircrete.
 - External face consisting of blocks.
 - Rigid insulation.
 - Internal face consisting of blocks.
 - Internal cement based render, preferably with lime content. Composition depends on masonry; the following mix is effective for flood resilience:
 - 1 cement : 6 sand: 1 lime on Aircrete.
 - Ensure stainless steel wall ties are used to minimise corrosion and consequent staining.

6.16 The general precautionary measures to mitigate the risk of groundwater flooding in this development are:

- Ground floor threshold levels are higher than 0.25 m above ground level to allow for uncertainty.
- It is proposed to add a tanking membrane up to 0.3 m above the ground level.
- Flow paths are provided around the proposed development, which groundwater will take in the event of groundwater emergence.



As these measures would mitigate the risks from groundwater flooding, it is considered that the risk from groundwater has been managed.

- 6.17 The Strategic Flood Risk Assessment shows that the site is outside of an area of sewer flooding, therefore no mitigation on sewer flood is required.
- 6.18 The Development Management Procedure Order (2015) requires that the Environment Agency is consulted on developments within Areas with Critical Drainage Problems (ACDPs). The Strategic Flood Risk Assessment does not show the development within a Critical Drainage Area.



7.1 The NPPF specifically stipulates that consideration should be given to potential off-site flood impacts of any proposed development. These off-site impacts are in relation to the following:

- Surface water management
- Flood flow conveyance, storage and climate change

Surface Water Management

7.2 The surface water run-off will be disposed of using SuDS techniques. The aim is to provide a sustainable design that accommodates the proposed attenuation volume and replicates the existing drainage regime using the SuDS hierarchy, is shown in the figure below.

7.3 The Landis Top Soil classification is freely draining. The SuDS techniques highlighted in red below could be used on-site. This assessment is based on the LANDIS Top Soil infiltration, ground conditions and available potential discharge points.

The SuDS Hierarchy (Source:EA Thames region, SuDS a practical guide)

Most Sustainable	SUDS technique	Flood Reduction	Pollution Reduction	Landscape & Wildlife Benefit
↑	Living roofs	✓	✓	✓
	Basins and ponds	✓	✓	✓
	- Constructed wetlands			
	- Balancing ponds			
	- Detention basins			
↓	Filter strips and swales	✓	✓	✓
	Infiltration devices	✓	✓	✓
	- soakaways			
	- infiltration trenches and basins			
	Permeable surfaces and filter drains	✓	✓	
Least Sustainable	- gravelled areas			
	- solid paving blocks			
	- porous paviers			
	Tanked systems	✓		
	- over-sized pipes/tanks			
	- storms cells			

7.4 With no increase in the rate of surface water discharge from the site, compared to the site in its current configuration, the proposed development



would have no adverse impact on surface water flood risk at the site or surrounding area. The SuDS should be designed at the detailed project stage.

Flood Flow conveyance and storage

- 7.5 Due to the size of the development and the fact that none of the footprint is located in an area of flood extents, flood storage volume is not lost therefore flood compensation for this development is not required.



- 8.1 This flood risk assessment has identified the potential flooding mechanisms that could affect the site. As part of this, the following residual risks have been evaluated.

Public safety and Site Access

- 8.2 This assessment has demonstrated that the proposed development will have no adverse impact on flood risk in the area surrounding the site. Available evidence indicates that the development would not change surface water generation. Therefore, there is no basis to indicate that, with respect to flood risk, the proposed development would adversely impact public safety.
- 8.3 It will be necessary to ensure that all building users are fully informed of procedures to be implemented during the threat of imminent flooding.

Flood Warning and evacuation

- 8.4 The site is located within an area covered by the Environment Agency Flood Alert service. It is recommended that the users of the proposed development are registered with this service to receive early warning of imminent flooding.
- 8.5 The occupants of the site are encouraged to sign up for the alerts. The Table 4 below shows the actions that must be taken for each flood warning.
- 8.6 Action to be taken in the event of an Alarm being Raised or a Flood Warning Received:
- Raise the alarm and evacuate the site following the established Fire Drill procedures. The main assembly is as per the main house fire drill assembly point.
 - Contact Emergency Fire Services (999) if necessary and Environment Agency Floodline: (0845 988 1188) if the event is unexpected.
 - If safe to do so, locate and turn off critical services, e.g. water, gas & electricity.
 - Follow the routes below to evacuate the site altogether.

Actions that will be taken for each flood warning

Warning	Message	Timing	Action
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Flooding is possible.

2 hours to 2 days in advance of flooding.

- Be prepared for flooding.
- Prepare a flood kit.

Be prepared.



Flooding is expected.

Half an hour to 1 day in advance of flooding.

- Act now to protect your property.
- Block doors with flood boards or sandbags and cover airbricks and other ventilation holes.
- Move pets and valuables to a safe place.
- Keep a flood kit ready.
- Move any critical equipment and information to a safe location

Immediate action required.



Severe flooding.
Danger to life.

When flooding poses a significant threat to life and different actions are required.

- Be ready should you need to evacuate from the property.
- Co-operate with the emergency services and call 999 if you are in immediate danger.

**Warning
Removed**

No further flooding is currently expected for your area.

Issued when a flood warning is no longer in force.

- Flood water may still be around and could be contaminated.
- If you've been flooded, ring your buildings and contents insurance company as soon as possible.

Useful local phone numbers

Please write your local phone numbers in the space provided below. Make sure they are easy to find in the event of a flood.

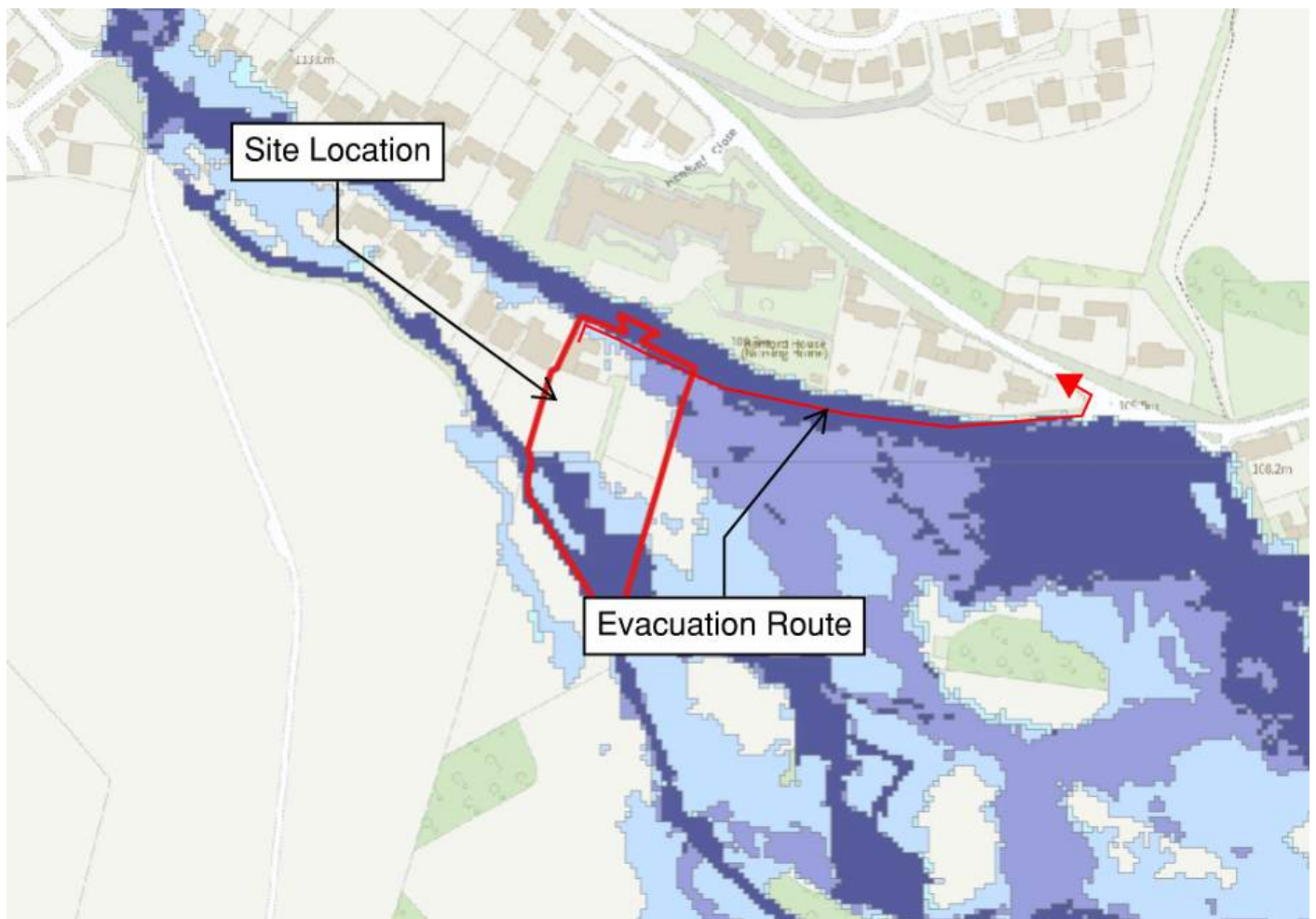
	Local authority:
	Local police:
	Gas and electricity company:
	Insurance company and policy details:
	Doctor:
	Pharmacy:
	Electrician:
	Gas safe engineer:
	Plumber:
	Builder:

8.7 The proposed evacuation route below shows how the development could be



evacuated before the 1 in 1000 or 0.1% annual probability of flooding extreme flood occurs. Safe egress is achievable by following Lower Marsh Road, up to Upper Marsh Road which is shown to be beyond the extent of flooding. See figure below for details.

Evacuation Route

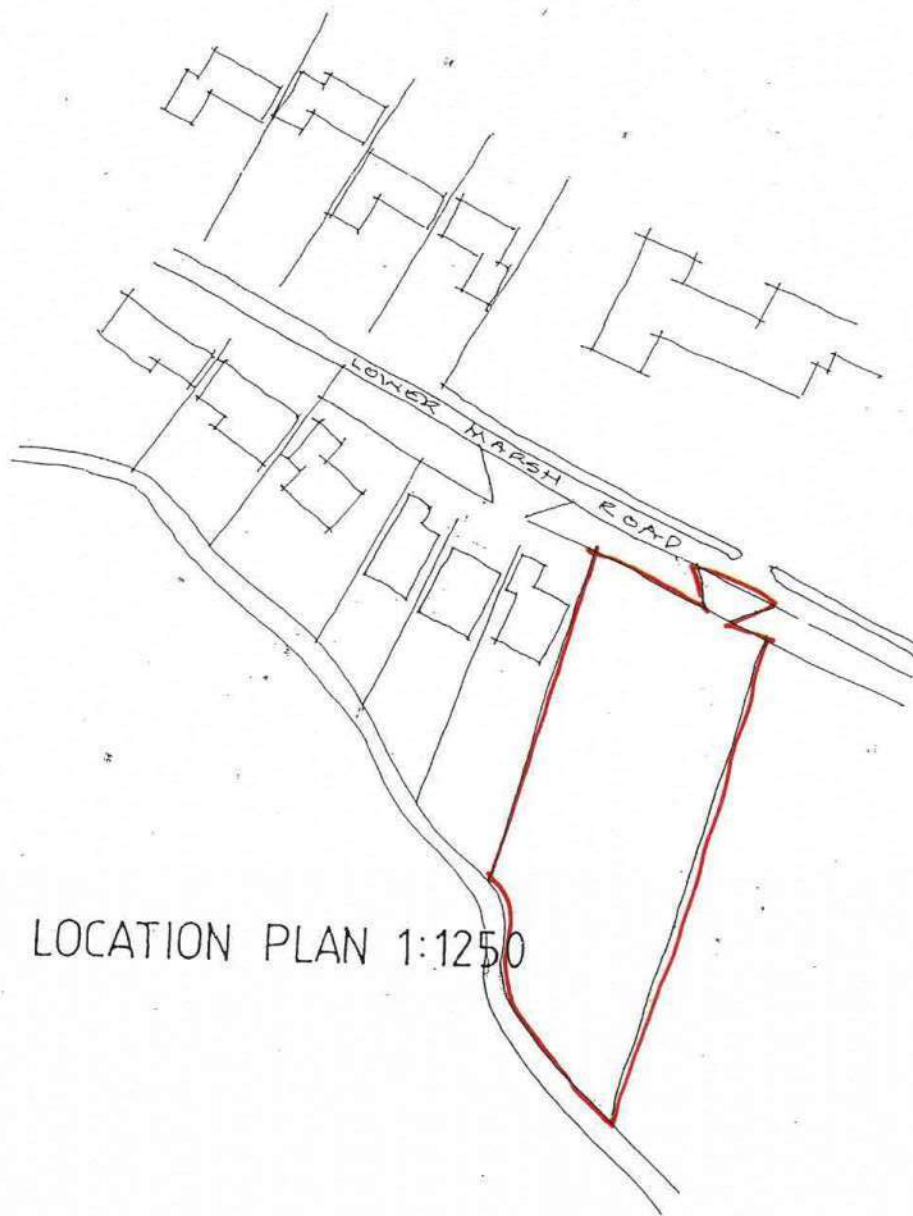


- 9.1 It is concluded that subject to the proposed mitigation measures, the site can be developed in accordance with the provisions of the NPPF and the requirements of the Environment Agency and the local planning authority.
- 9.2 This report demonstrates that the proposal will be safe, in terms of flood risk, for its design life and will not increase the flood risk elsewhere.
- 9.3 It is proposed that a formal Flood Warning and Emergency Response Plan is developed for the proposed development to communicate flood emergency response procedures to all the occupants of the site.





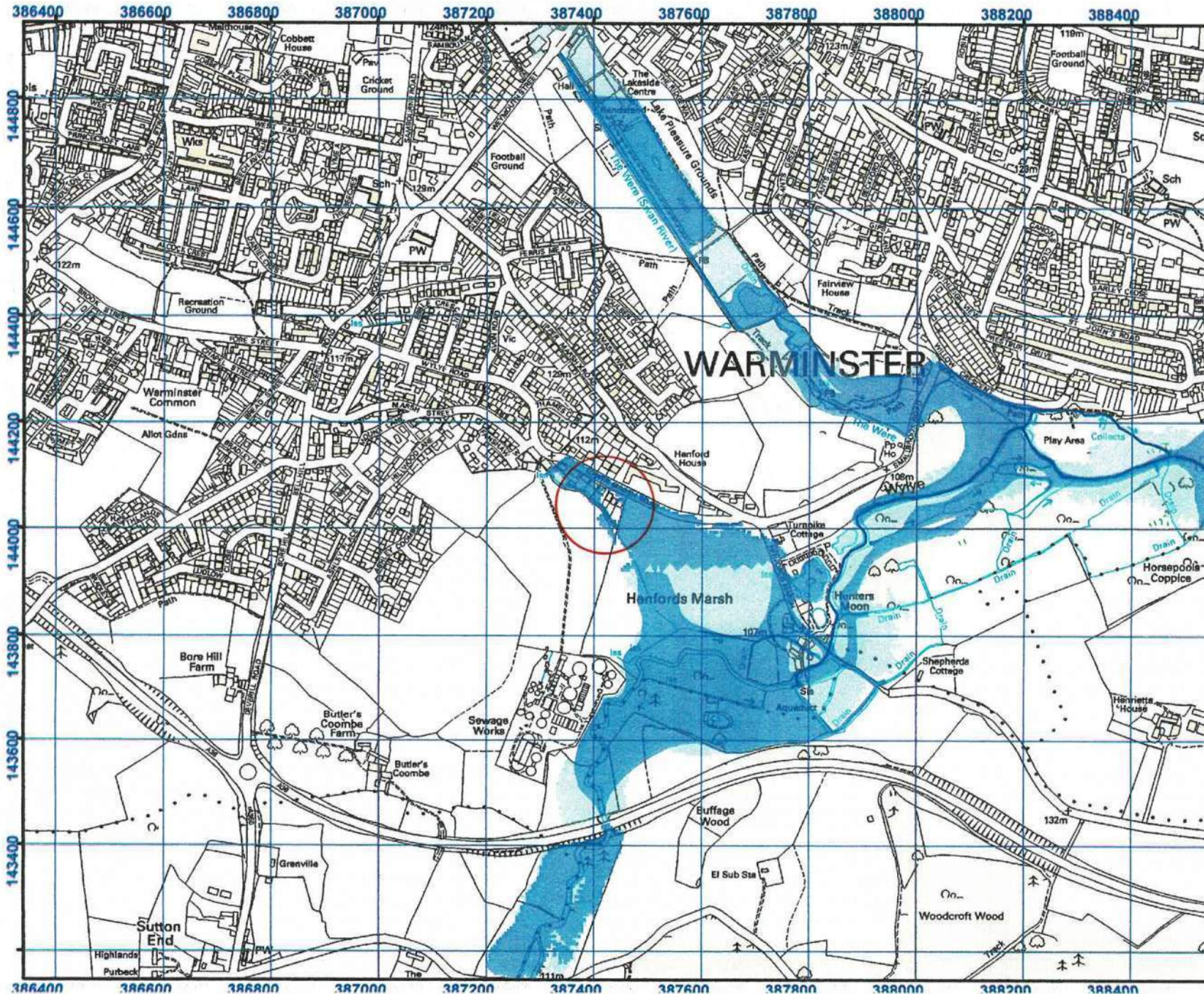
Appendix A



LOCATION PLAN 1:1250

MAP 1

CSC/0624/BF - Floodplain Map centred on Lower Marsh Road, Warminster, Wiltshire, BA12 9PB



Legend

-  Main Rivers
-  Flood Zone 3 (1:100)
-  Flood Zone 2 (1:1,000)

MAP 3

Flood Map Areas (assuming no defences)
Flood Zone 3 shows the area that could be affected by flooding:
- from the sea with a 1 in 200 or greater chance of happening each year
- or from a river with a 1 in 100 or greater chance of happening each year.
Flood Zone 2 shows the extent of an extreme flood from rivers or the sea with up to a 1 in 1000 chance of occurring each year.

Metres 1:10,000
0 120 240 360 480
1 centimetre = 100 metres

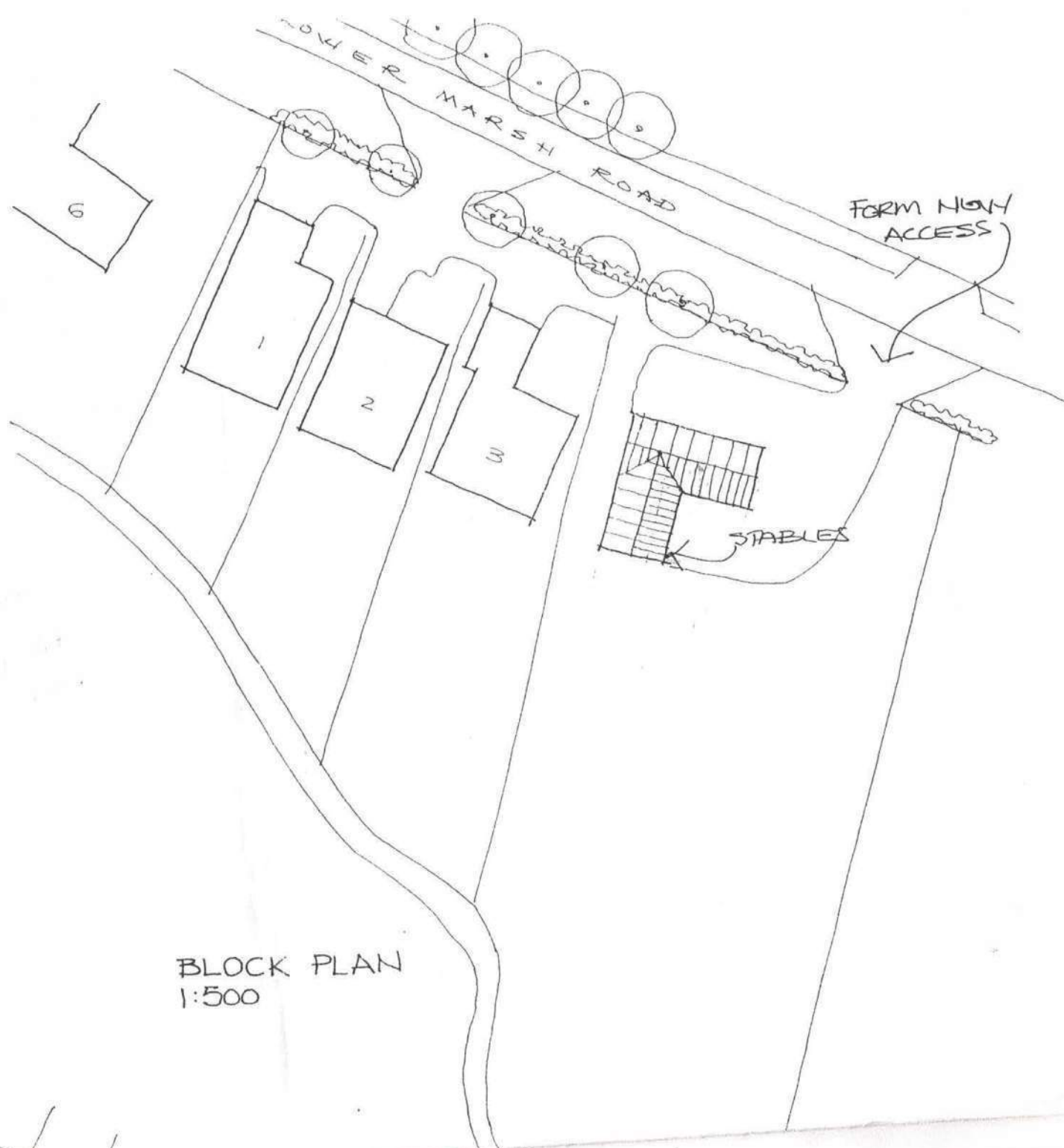
© Crown copyright. All rights reserved.
Environment Agency, 100026380, 2008.

This map is based on Ordnance Survey Landline data and produced for the Environment Agency with the permission of Ordnance Survey. Aerial imagery is copyright Getmapping plc, all rights reserved. Licence number 22047.

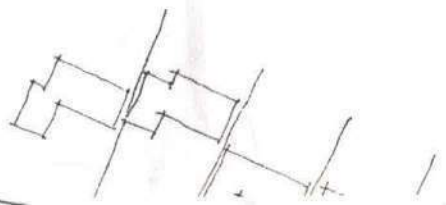


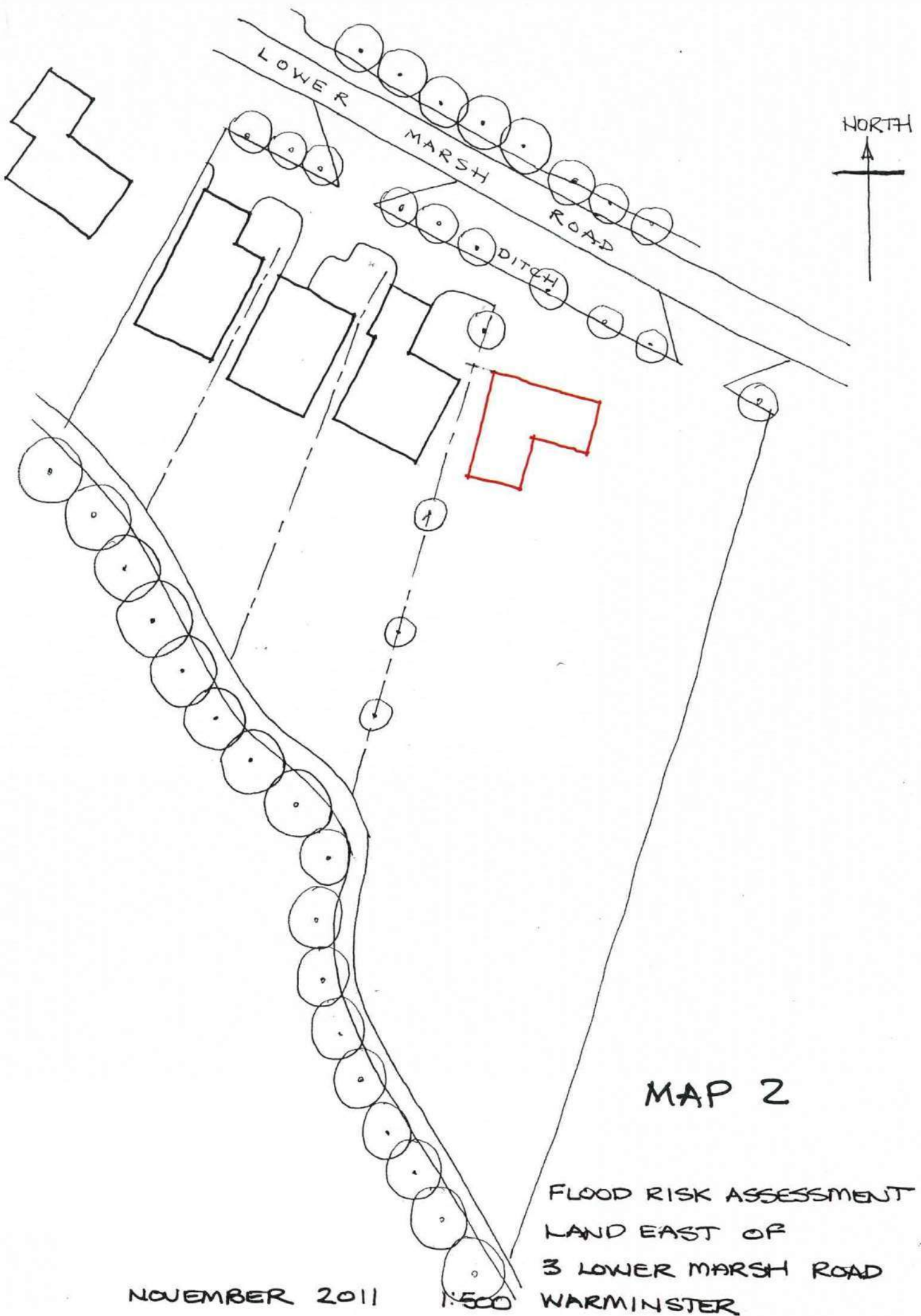


Appendix B



BLOCK PLAN
1:500





NORTH

LOWER MARSH ROAD

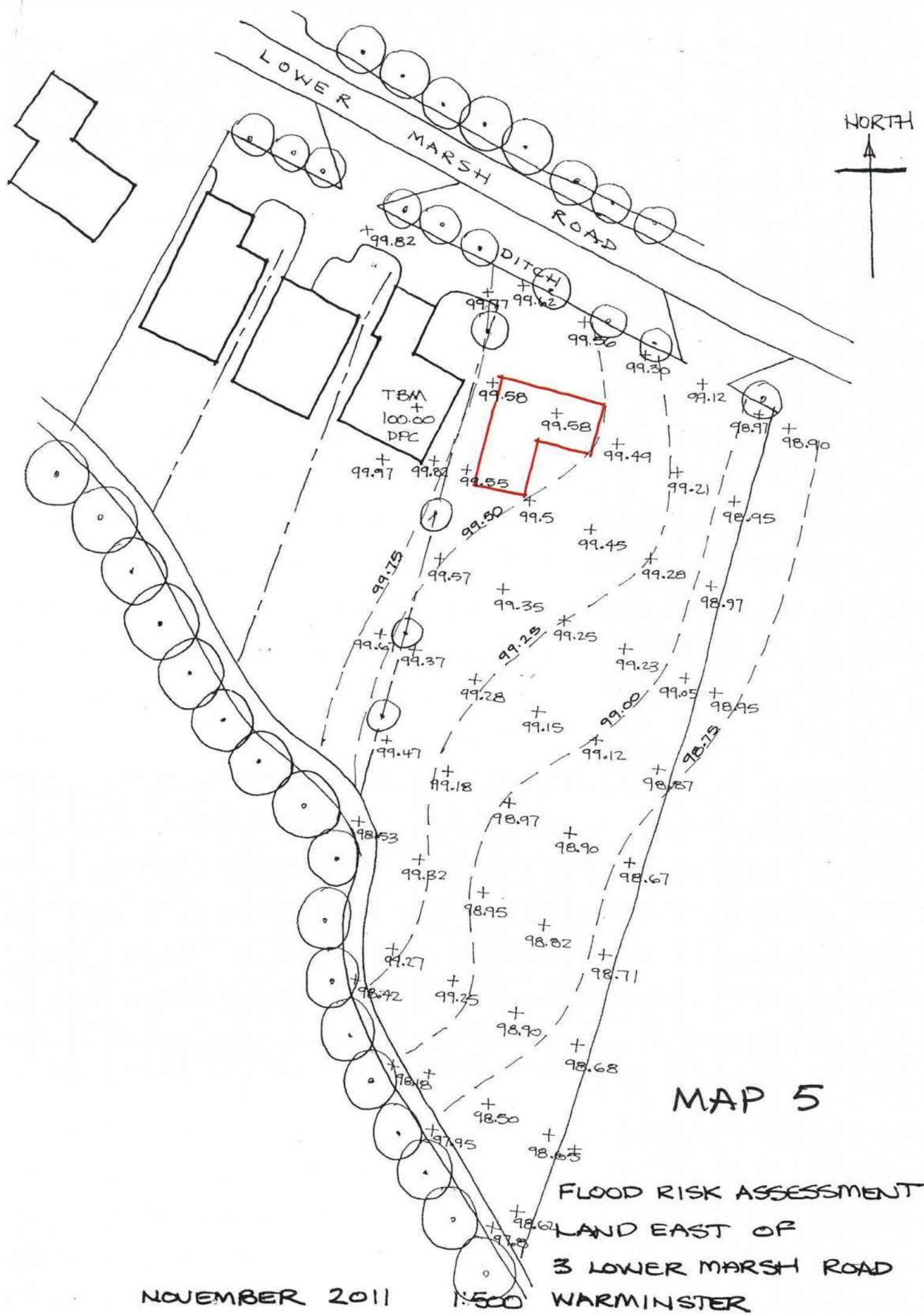
DITCH

MAP 2

FLOOD RISK ASSESSMENT
LAND EAST OF
3 LOWER MARSH ROAD
WARMINSTER

NOVEMBER 2011

1:500



MAP 5

FLOOD RISK ASSESSMENT
LAND EAST OF
3 LOWER MARSH ROAD
WARMINSTER

NOVEMBER 2011

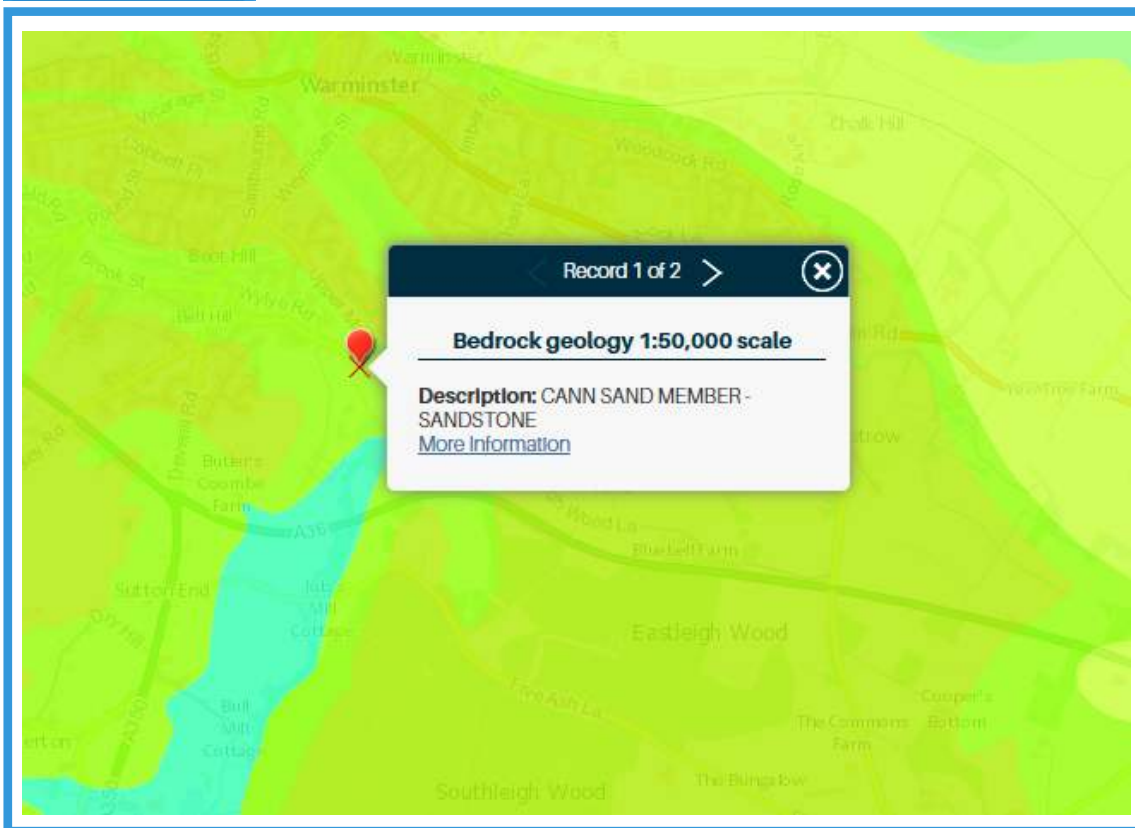
1:500

Appendix C

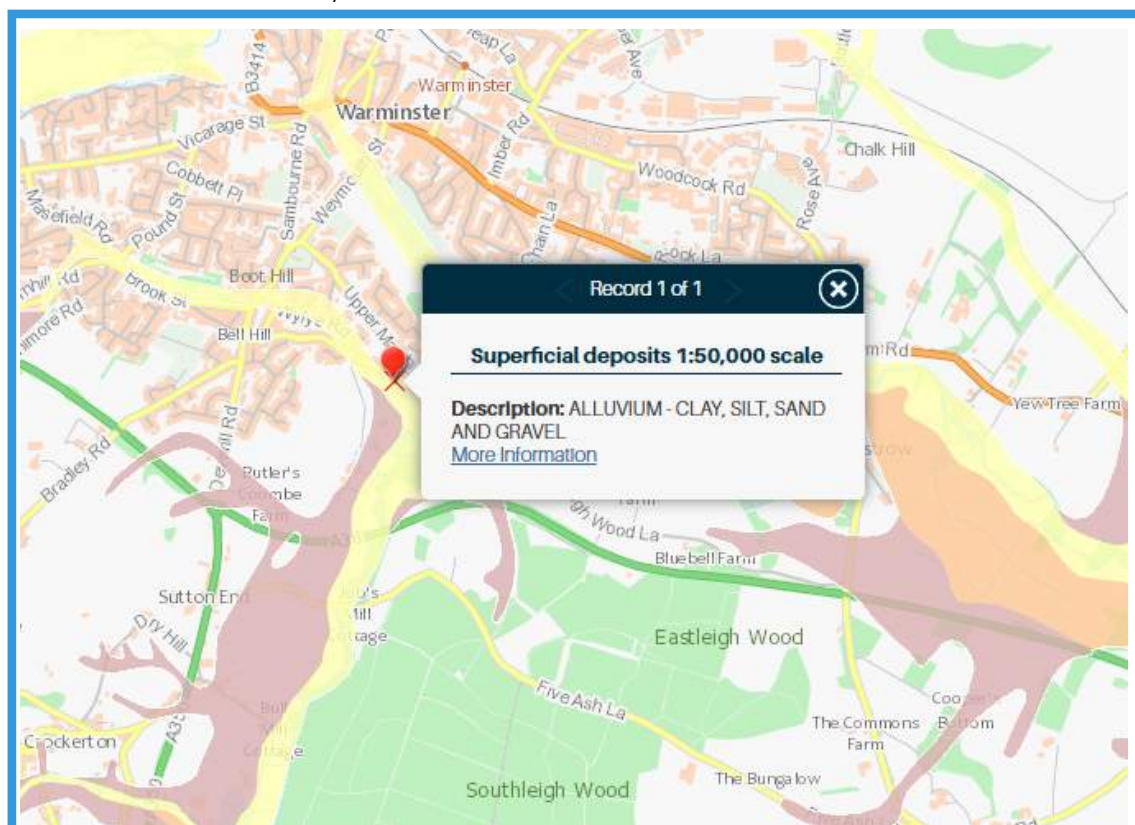
SITE GEOLOGY

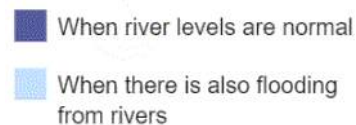
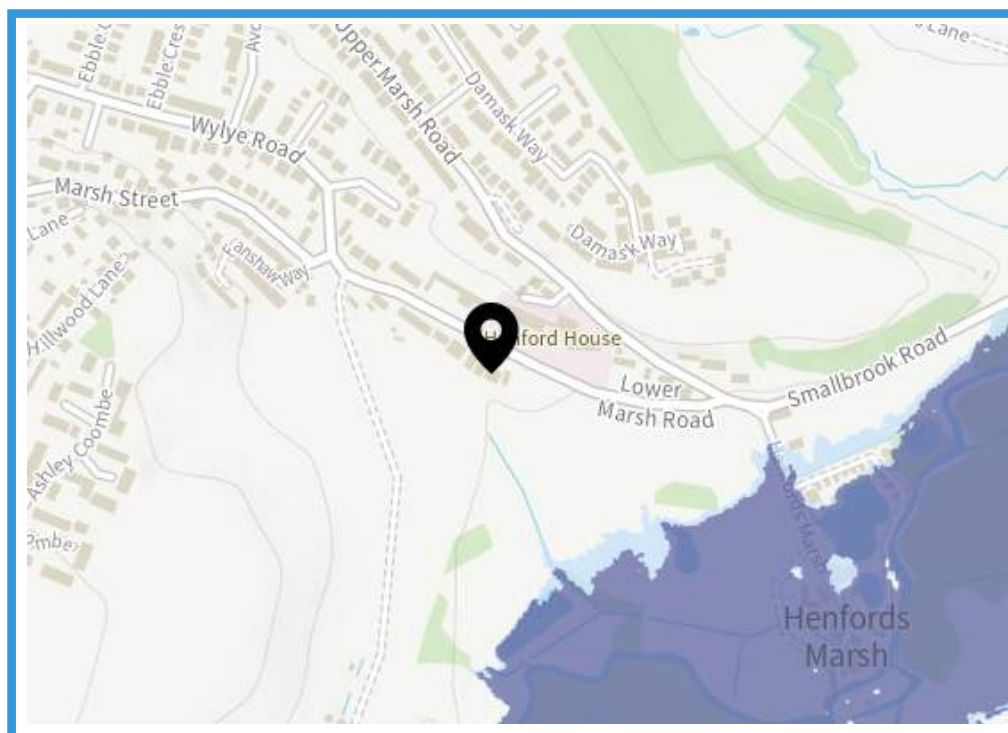
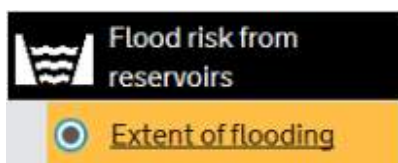
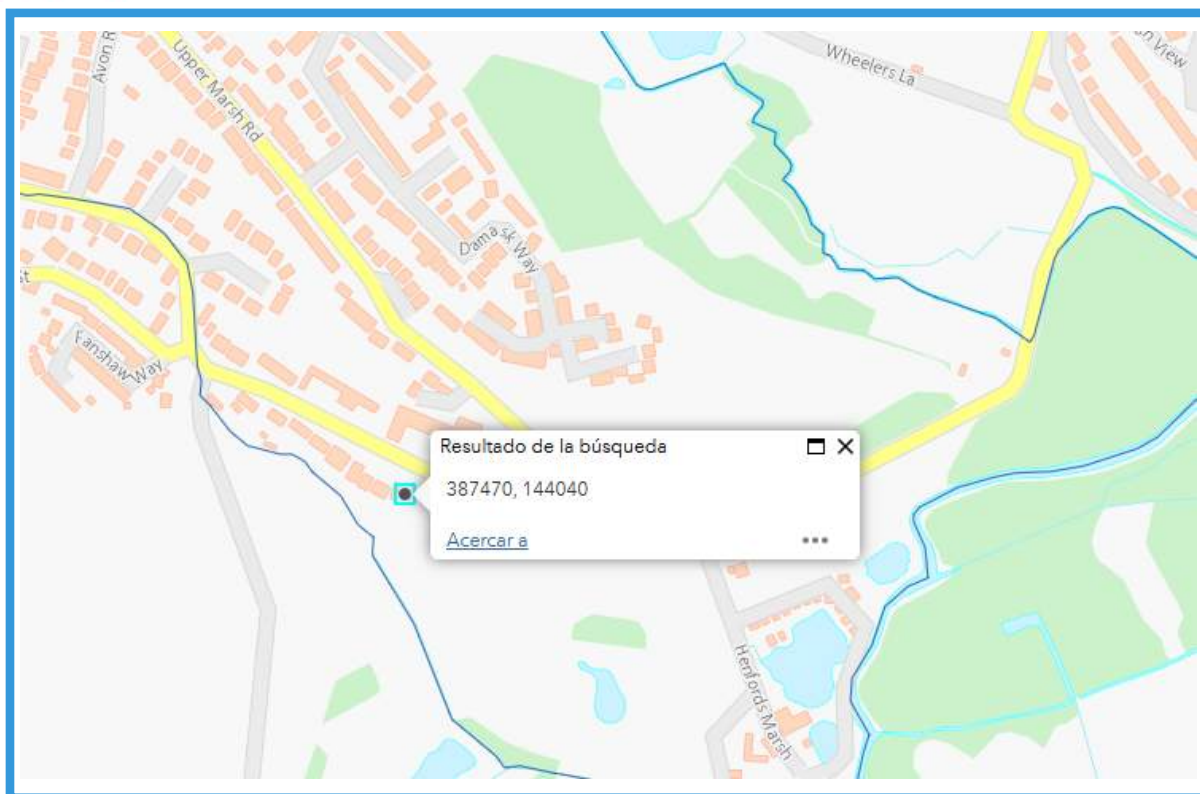


GEOLOGY - BEDROCK - ANN SAND MEMBER - SANDSTONE



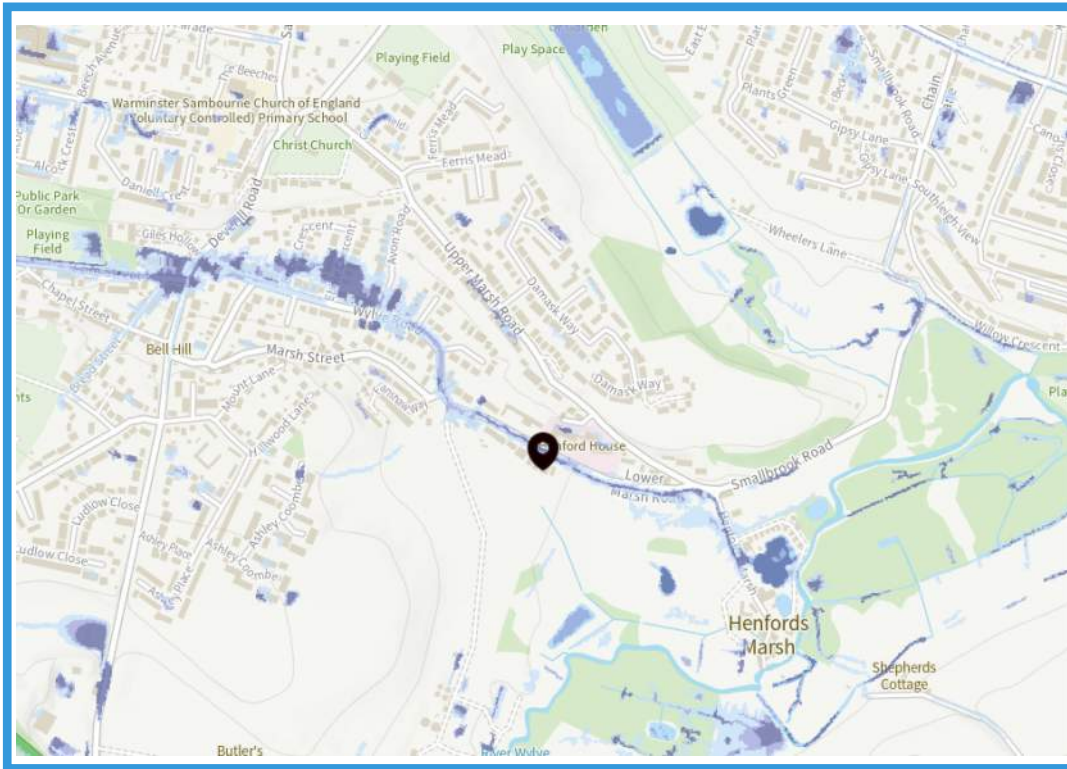
GEOLOGY - SUPERFICIAL DEPOSITS - ALLUVIUM - CLAY, SILT, SAND AND GRAVEL





SITE SURFACE WATER FLOOD RISK

High risk means a chance of flooding greater than 3.3% (1:30)
 Medium risk means a chance of flooding of btw 1% (1:100) and 3.3%
 Low risk means a chance of flooding of btw 0.1% (1:1000) and 1%
 Flooding from surface water is difficult to predict as rainfall location and volume are difficult to forecast. In addition, local features can greatly affect the chance and severity of flooding



Yearly chance of flooding between 2040 and 2060

-  Flood area (extent)
-  High chance
-  Medium chance
-  Low chance

DEPTH



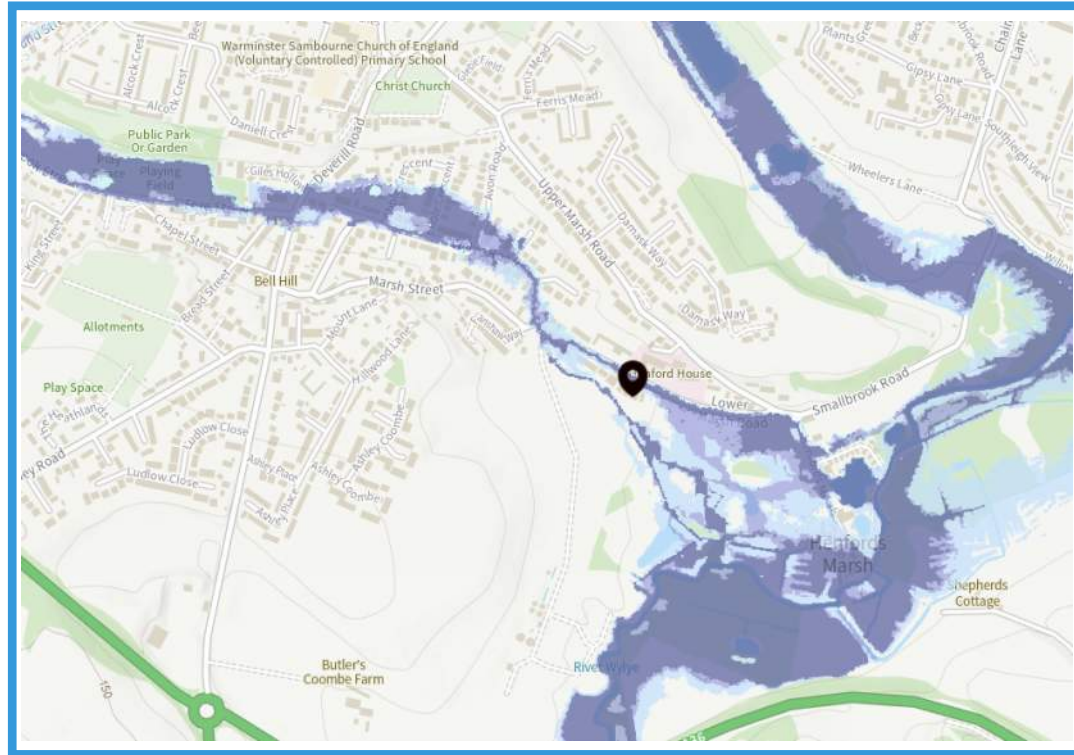
- ☒  rofsw_cc01_4band_0_2m_depth
-  High
-  Medium
-  Low
-  Unavailable



- ☒  rofsw_cc01_4band_0_3m_depth
-  High
-  Medium
-  Low
-  Unavailable

RIVER AND SEA FLOOD RISK MAP

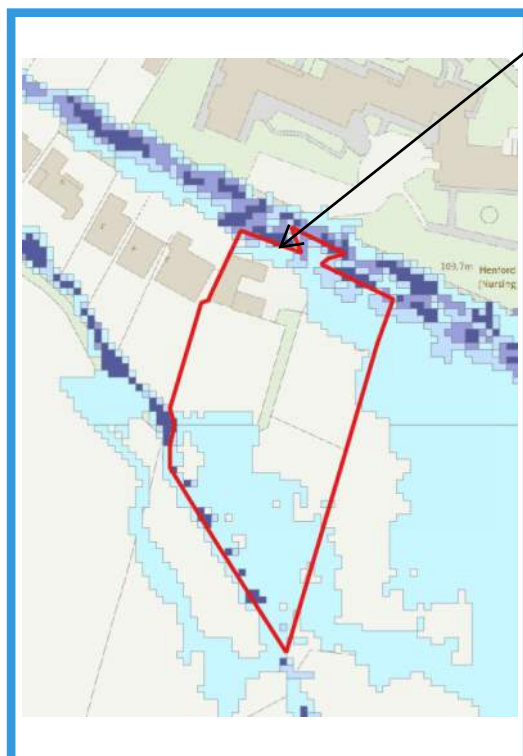
- High - greater than or equal to 1 in 30 (3.3%) chance of flooding in any year
- Medium - Less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) chance of flooding in any given year
- Low - Less than 1 in 100 (1%) but greater than or equal to 1 in 1000 (0.1%) chance of flooding in any given year
- Very low - less than 1 in 1000 (0.1%) chance of flooding in any given year



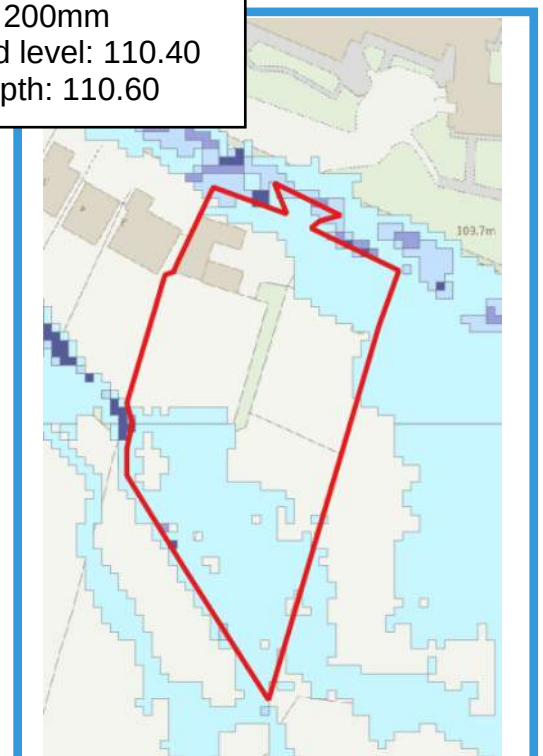
Yearly chance of flooding between 2036 and 2069

- Flood area (extent)
- High chance
- Medium chance
- Low chance
- Very low chance
- No data available

DEPTH



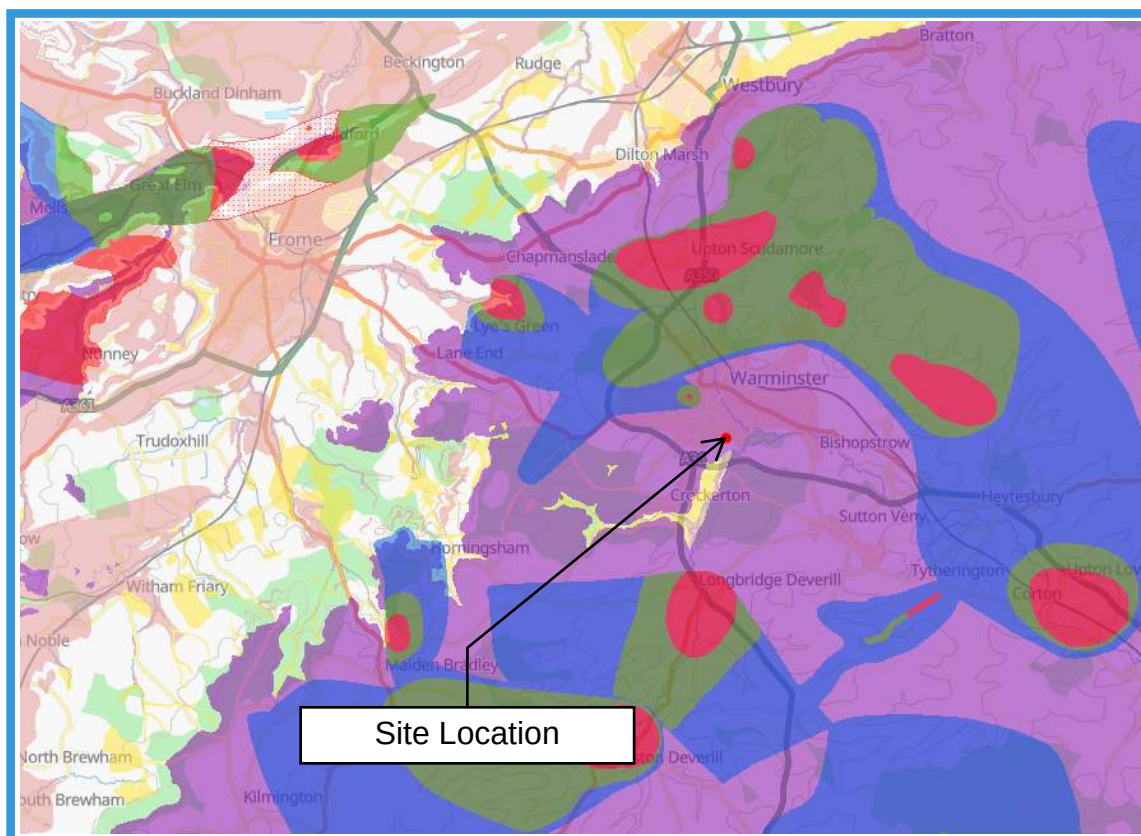
Very low risk of flood depth of 300mm, therefore max flood depth taken as 200mm
External ground level: 110.40
Fluvial flood depth: 110.60



- ✓ ☒ rofrs_cc01_4band_0_2m_depth
- High
- Medium
- Low
- Very low
- Unavailable

- ✓ ☒ rofrs_cc01_4band_0_3m_depth
- High
- Medium
- Low
- Very low
- Unavailable

MAGIC RESULTS



Site Check Results

Site Check Report generated on Wed Jul 09 2025

The following features have been found in your search area:

You selected the location: Centroid Grid Ref: ST87464402

Aquifer Designation Map (Superficial Drift) (England)

TYPOLOGY Secondary (undifferentiated)

TYPOLOGY Secondary A

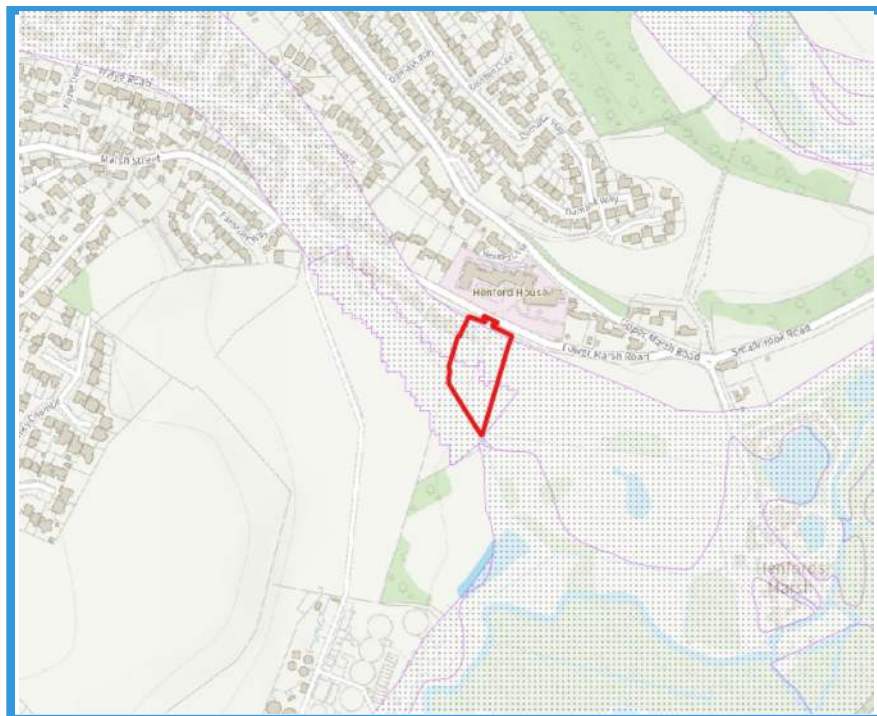
Aquifer Designation Map (Bedrock) (England)

TYPOLOGY Principal

Source Protection Zones merged (England)

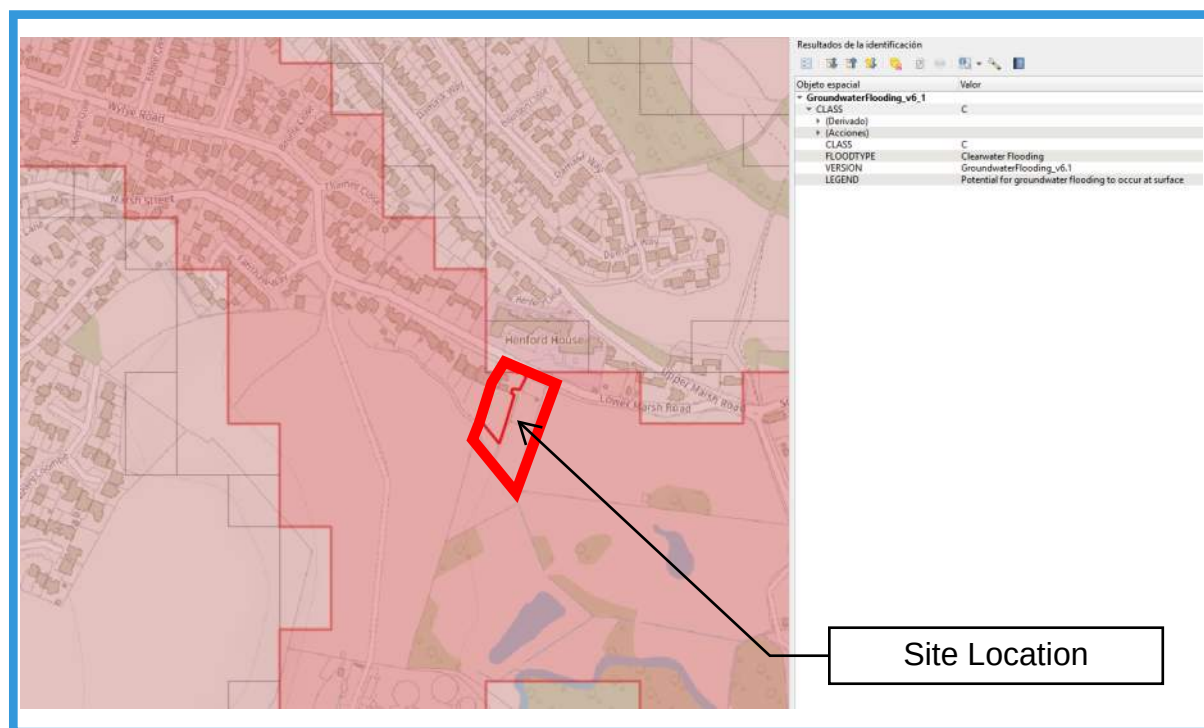
No Features found

FLOOD WARNING AREA

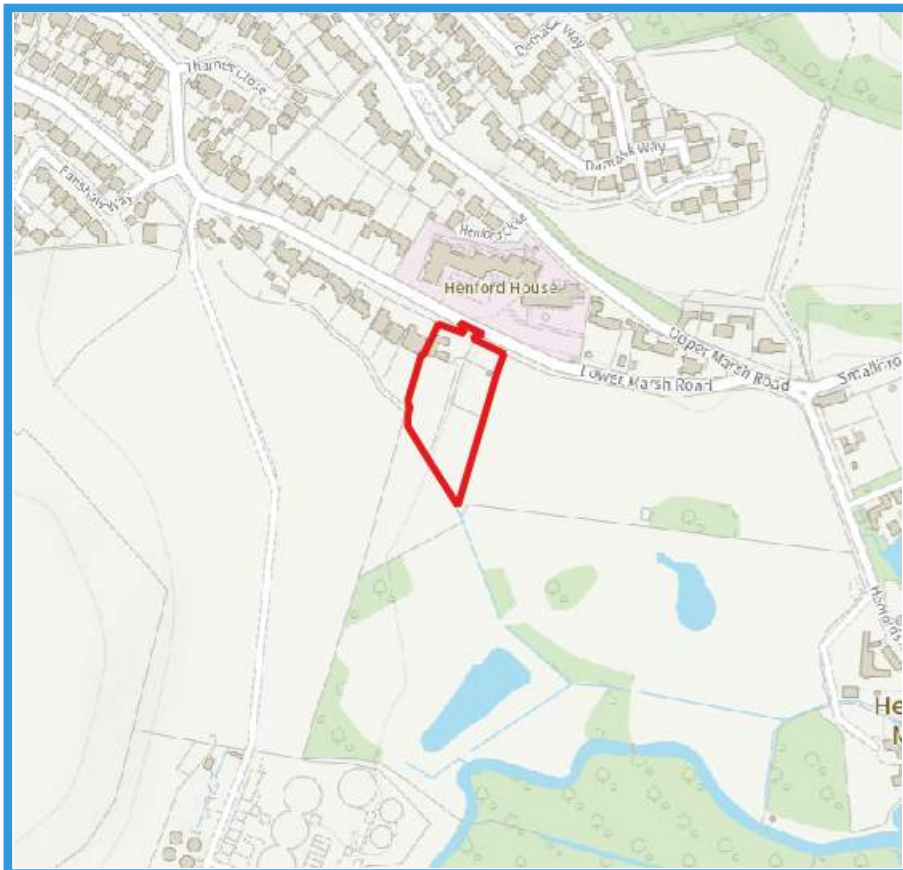


 Flood Warning areas

GROUND WATER FLOOD RISK



HISTORIC FLOOD MAP



 Historic Flood Outline

Flood map for planning

Your reference
Unspecified

Location (easting/northing)
387473/144003

Created
11 July 2025 17:53

Your selected location is in flood zone 3, an area with a high probability of flooding.

This means:

- you must complete a flood risk assessment for development in this area
- you should follow the Environment Agency's standing advice for carrying out a flood risk assessment (see <https://www.gov.uk/guidance/flood-risk-assessment-standing-advice>)

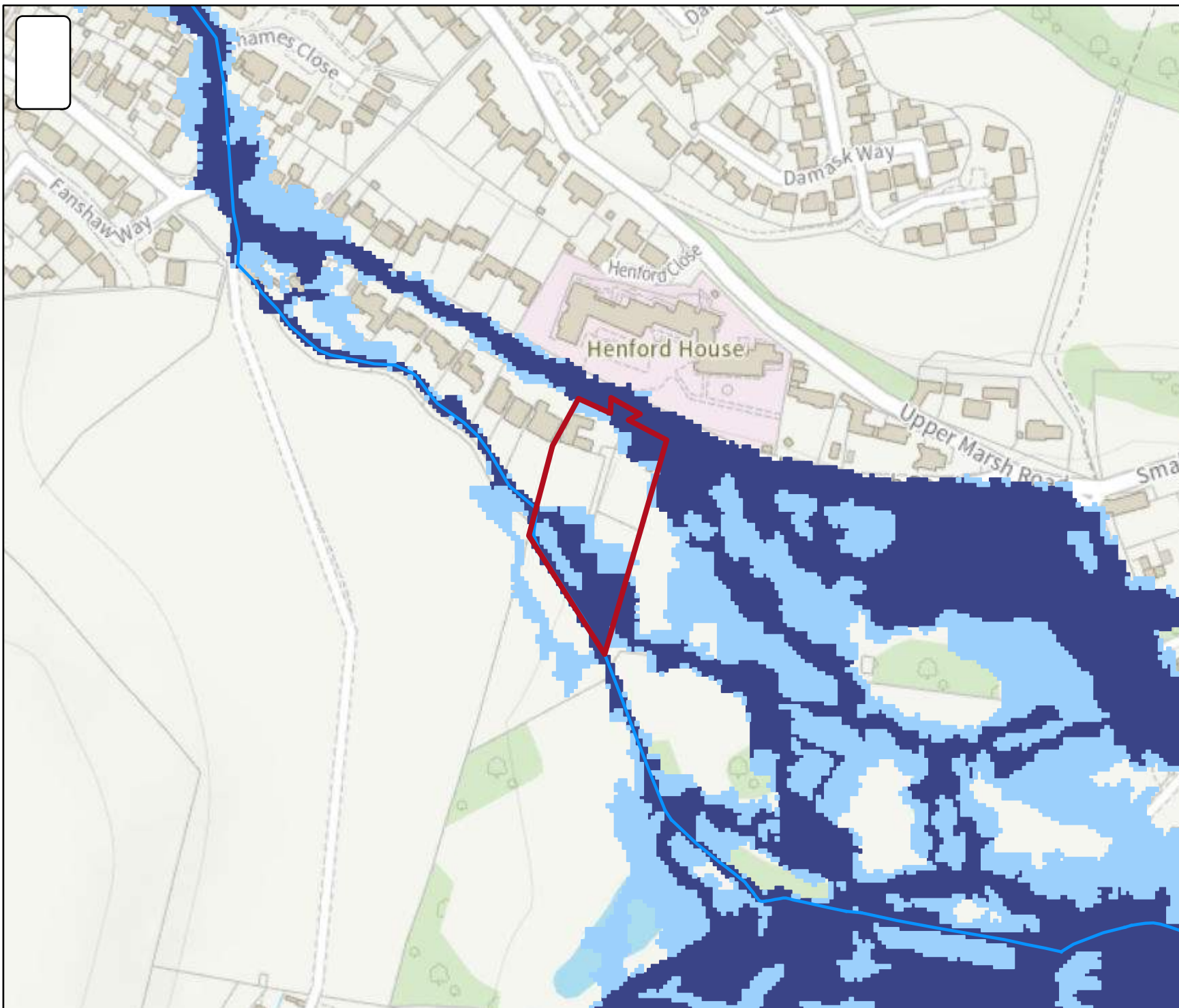
Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

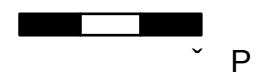
Flood risk data is covered by the Open Government Licence which sets out the terms and conditions for using government data. <https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3>

Use of the address and mapping data is subject to Ordnance Survey public viewing terms under Crown copyright and database rights 2025 AC0000807064. <https://flood-map-for-planning.service.gov.uk/os-terms>



)ORRG PDS IRU S
 <RXU UHIHUHQFH
 8QVSHFLILHG
 /RFDWLRQ HDVWL
 ^ ^
 6FDOH
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 &UHDWHG
 -XO ^ ^

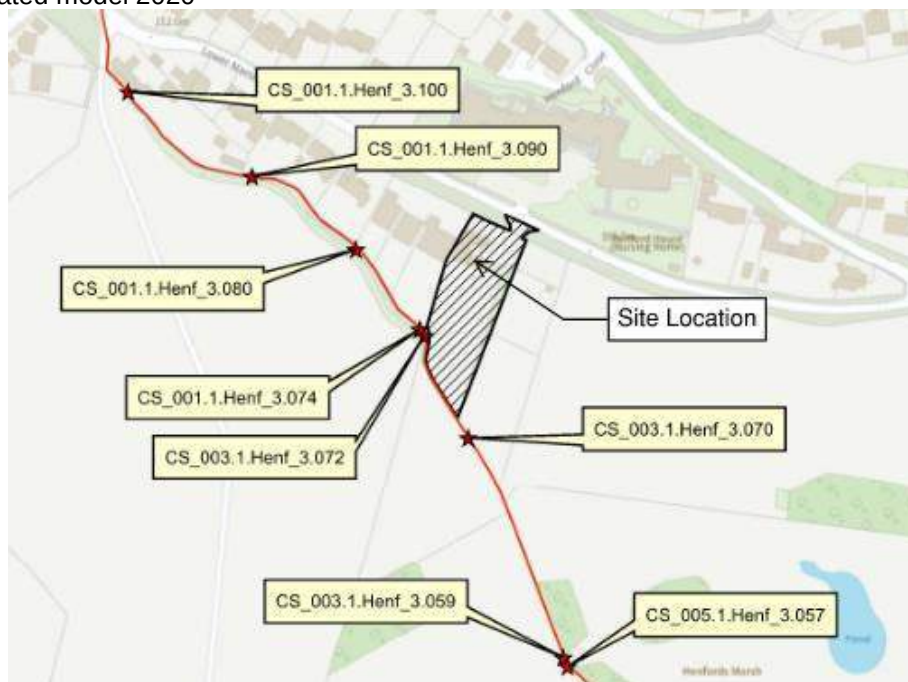
- 6HOHFWHG DUH
-)ORRG JRQH
-)ORRG JRQH
-)ORRG JRQH
-)ORRG GHIHQFH
- 0DLQ ULYHU
- :DWHU VWRUDJ



3DJH RI

Appendix D

Warminster integrated model 2020



Defended

NODE	EASTING	NORTHING	1 in 20	1 in 30	1 in 100	1 in 100 + CC	1 in 1000
CS_003.1.Henf_3.072	387443	144002	109	109.01	109.05	109.20	109.31

Undefended

NODE	EASTING	NORTHING	1 in 20	1 in 30	1 in 100	1 in 100 + CC	1 in 1000
CS_003.1.Henf_3.072	387443	144002	109	109.01	109.08	109.22	109.32

The water levels for the site are as follow



NODE	EASTING	NORTHING	1 in 100	1 in 1000
1	387448	144049	110.18	110.33

Alejandro Gonzalez
alejandro@urban-water.co.uk

Our ref: 382514-WX
Date: 15th November 2024

Dear Alejandro

Thank you for your enquiry which was received on 29th October 2024. We respond to requests under the Freedom of Information Act 2000 and Environmental Information Regulations 2004.

Abstract

Name	Product 4
Description	Flood Risk Information for land at 3 Lower Marsh, BA12 9PB NGR: ST8744844049
Licence	Open Government Licence
Information Warnings	<i>The mapping of features provided as a background in this product is © Ordnance Survey. It is provided to give context to this product. The Open Government Licence does not apply.</i>
Attribution	Contains Environment Agency information © Environment Agency and/or database rights. Contains Ordnance Survey data © Crown copyright 2023 Ordnance Survey AC0000807064.

Open Data

The following Environment Agency published datasets are now available on the weblink below as part of the Government's 'Open Data' project and are available for you to download free of charge.

Environment Agency published datasets: <https://data.gov.uk/data/search?publisher=environment-agency&unpublished=false>

You will need to search and select the name of the following datasets to take you directly to the weblink to enable you to download the data:

- Flood Map for Planning (Rivers and the Sea) – Flood Zones 2 and 3
- Flood Map for Planning (Rivers and Sea) – Areas Benefiting from Defences
- Flood Map for Planning (Rivers and Sea) Spatial Flood Defences
- Flood Map for Planning (Rivers and Sea) Flood Storage Areas
- Recorded Flood Outlines
- Historic Flood Map
- Risk of Flooding from Surface Water Extent for:
 - 3 percent annual chance
 - 1 percent annual chance
 - 0.5 percent annual chance

You can also access the Flood Map for Planning here: <https://flood-map-for-planning.service.gov.uk/>

You can also access the Risk of Flooding from Surface Water maps and Risk of Flooding from Reservoirs information here: <https://flood-warning-information.service.gov.uk/long-term-flood-risk/map>

Recorded Historic Flood Events

Our historic records show a record of possible flooding pre 2012 for the area, however we are currently unable to confirm the date and source of this.

Please note - we cannot guarantee that this is an exhaustive list of all past flood events in this location. All reasonable care has been taken to ensure that the historical flood event data is as accurate as possible. The Environment Agency will update its records if new evidence emerges.

Modelled Fluvial Water Levels

The attached map contains a set of modelled (within the river channel) fluvial flood level node locations/unique identifiers, for the River Were and Cannimore Stream. The modelled data is taken from the Warminster integrated model 2020 model. A sheet is also attached providing the associated flood levels, flood flows if available and NGRs relating to each of these nodes.

Please note: Modelled water levels and flows are in channel values only. There may be a variation in water levels and flows across the flood plain in the 2D domain.

2D Modelled Flood Plain Water Levels

Please see below for maximum 2D level information for your site for a range of return periods. This information is taken from the Warminster Integrated Model 2020.

Maximum 2D modelled water levels for the investigation area:

Undefended Levels

1% AEP (100yr) undefended:	110.18 mAOD
0.1% AEP (1000yr) undefended:	110.33 mAOD

Defended Levels

1% AEP (100yr) defended:	110.23 mAOD
0.1% AEP (1000yr) defended:	110.33 mAOD

Undefended Depths

1% AEP (100yr) undefended:	0.21 m
0.1% AEP (1000yr) undefended:	0.38 m

Defended Depths

1% AEP (100yr) defended:	0.27 m
0.1% AEP (1000yr) defended:	0.38 m

N.B. 0.00 (m or mAOD) indicates the data does not reach the site.

N.B. Levels and depths have been extracted based upon the site boundary plan provided.

N.B. Please note not all models contain climate change runs.

The Environment Agency do not hold the IPR rights to share the Warminster Product 6 Model Outputs and Product 7 Model Input data. Please contact Wiltshire Council to discuss use of the model data.

The Environment Agency are currently investigating ways of sharing the fluvial model data only. Please contact the Environment Agency in 3 months-time to check the progress of this.

JFLOW

We have not carried out any detailed fluvial flood risk modelling in parts of this location.

The fluvial Flood Map in this area has been produced using our National Generalised Model (JFLOW). This modelling is fit for the purpose of the Flood Zones. However, it is not based on a specific channel survey. Neither water depths nor water levels were outputs specified when we commissioned this generalised modelling for the Flood Zones. Whilst the modelling process does provide some information on depth of water, it would have been possible to produce the flood extents without storing the water depth values, since water depth is only a 'by-product' of the calculation process. As this type of modelling was developed, tested and reviewed for production of the Flood Zone extents only, we have no information on the accuracy of the water depth data. Water depth or level outputs from this model are only suitable to be used for decision making at a broad catchment scale and is not fit for the purpose of a site-specific flood risk assessment.

For your information we have supplied maps showing the water depths derived from JFLOW for the 1% AEP (100yr) and 0.1% AEP (1000yr) fluvial modelled flood scenarios.

Please note - The Environment Agency is currently carrying out a project to update the National Generalised model (JFLOW). The New National Model outputs are expected in Spring 2025. Our published flood risk information for this area will be updated using outputs from the New National Model and this is expected to take place in late 2025 (current programme which may change). This will be carried out as part of the National project to update our National flood risk mapping and modelling information across England and will incorporate outputs from detailed local models together with updated National modelling.

The New National Modelling (NNM) is a set of models for rivers, surface water and the sea covering the whole of England. The NNM has been created to fill in gaps where we don't have local hydraulic models, our local models require updating or we need additional model scenarios such as climate change runs.

Please also note - we are currently carrying out a National project to update our flood risk information for the whole of England. We will be updating our flood risk information in 2025 as part of the new National Flood Risk Assessment (NaFRA2). This will include the data displayed on the Check Your Long-Term Flood Risk service and the data displayed in the Flood Map for Planning (Rivers and Sea).

This should result in improvements to our mapping products, especially where we do not currently have any detailed local modelling. This means there will be some changes to our flood risk information in many areas when the new data is published.

You can find further information on the NaFRA2 project here: <https://www.gov.uk/guidance/updates-to-national-flood-and-coastal-erosion-risk-information>

For more information on climate change allowances please see the guidance on the Gov.UK website here: [Flood risk assessments: climate change allowances - GOV.UK](#). **Please be aware that this information is subject to change, please check the guidance regularly.**

Environmental Permit for Flood Risk Activities

In addition to any other permission(s) that you may have already obtained e.g. planning permission, you may need an environmental permit for flood risk activities (formerly known as Flood Defence Consent prior to 06 April 2016) if you want to do work:

- in, under, over or near a main river (including where the river is in a culvert)
- on or near a flood defence on a main river
- in the flood plain of a main river
- on or near a sea defence

For further information and to check whether a permit is required please visit:

<https://www.gov.uk/guidance/flood-risk-activities-environmental-permits>.

For any further advice, please email Blandford.frap@environment-agency.gov.uk.

Flood Asset Information

Please find enclosed details of Flood Assets within the area. This information has been taken from our Asset Information Management System database (AIMS).

Please note that flood defences can increase water levels elsewhere eg through channels being restricted by defences, or because defences prevent flood water flowing back into the river channel.

Planning

If you have questions regarding the planning nature of your enquiry, or require advice on floor levels, please contact our Sustainable Places team on wx.sp@environment-agency.gov.uk. Please be aware that we now charge for planning advice when consulted on pre-application enquiries. This new approach provides advice to developers in two ways. Firstly, there is the provision of 'free' advice available to everyone where we give a preliminary opinion on a proposed development. This sets out the environmental constraints together with any issues this raises for us. Should you wish us to review in detail any of these issues then we can do this through a chargeable scheme aimed at recovering our costs.

Strategic Flood Risk Assessment (SFRA)

When preparing a FRA to support a development proposal in this location you should refer to Wiltshire Council's SFRA Reports Level 1 which is available to download via the following link: https://www.wiltshire.gov.uk/media/5691/Strategic-Flood-Risk-Assessment-Level-1/pdf/Wiltshire_Council_Level_1_SFRA_v5.0.pdf?m=637459765054370000

The Wiltshire Council Local Plan is available via this link: <https://www.wiltshire.gov.uk/planning-policy-local-plan-review-consultation>

Further Information

We advise that you also contact the drainage engineer/ flood risk management team at Wiltshire Council by email: drainage@wiltshire.gov.uk, or by phone: 0300 456 0105, based at: Bythesea Road, Trowbridge, Wiltshire, BA14 8JN, as they may be able to provide further advice with respect to localised flooding and drainage issues.

Further details about the Environment Agency information supplied can be found on our website: <https://www.gov.uk/browse/environment-countryside/flooding-extreme-weather>

We hope you find this information helpful. It is provided subject to the attached notice 'Use of Environment Agency Information for Flood Risk Assessments', which we strongly recommend you read.

Yours sincerely

Corinne Moyse

Customer & Engagement, Wessex
Rivers House, East Quay, Bridgwater, Somerset, TA6 4YS
Email: wessexenquiries@environment-agency.gov.uk

Enc: Use of Environment Agency Information for Flood Risk Assessments (below)
382514-WX Node Location Map
382514-WX Node Data
382514-WX Defence Map
382514-WX Defence Data

Use of Environment Agency Information for Flood Risk Assessments (FRAs)

Important

Use of Environment Agency data: you should note that

1. Information supplied by the Environment Agency may be used to assist in producing a Flood Risk Assessment (FRA) where one is required, but the use of Environment Agency information does not constitute such an assessment on its own.
2. As part of your data request, we have provided all of the modelled data we hold for your location. Please note that some of our modelled information may have been produced for purposes other than for flood zone generation. This may mean that some of the modelled data you have been provided with has a lower confidence level, and has not been used in producing our flood map, nor definitively reflects the predicted flood water level at the property/development site scale. To check the suitability of the use of this information in your FRA please contact your local Partnership & Strategic Overview (PSO) team.
3. This information covers flood risk from main rivers and the sea, and you will need to consider other potential sources of flooding, such as groundwater or surface water runoff. The information produced by the Local Planning Authority and the Lead Local Flood Authority (LLFA) may assist in assessing other sources of flood risk.
4. Where a planning application requires a FRA and this is not submitted or deficient, the Environment Agency may well raise an objection.
5. For more significant proposals in higher flood risk areas, we would be pleased to discuss details with you ahead of making any planning application, and you should also discuss the matter with your Local Planning Authority.

Pre-Planning Advice from the Environment Agency

If you have requested this information to help inform a development proposal, then we recommend that you undertake a formal pre-application enquiry using the form available from our website:

Pre-application Preliminary Opinion:

<https://www.gov.uk/government/publications/pre-planning-application-enquiry-form-preliminary-opinion>

Pre-application Charged Service:

<https://www.gov.uk/government/publications/planning-advice-environment-agency-standard-terms-and-conditions>

Depending on the enquiry we may also provide advice on other issues related to our responsibilities, including flooding, waste, land contamination, water quality, biodiversity, navigation, pollution, water resources, foul drainage or Environmental Impact Assessment.

Flood Risk Assessment (FRA) Guidance

You should refer to the Planning Practice Guidance of the National Planning Policy Framework (NPPF) and the Environment Agency's Flood Risk Standing Advice for information about Flood Risk Assessment (FRA) for new development in the different Flood Zones. These documents can be accessed via:

National Planning Policy Framework Planning Practice Guidance:

<http://planningguidance.planningportal.gov.uk/>

Customer & Engagement, Wessex

Rivers House, East Quay, Bridgwater, Somerset, TA6 4YS

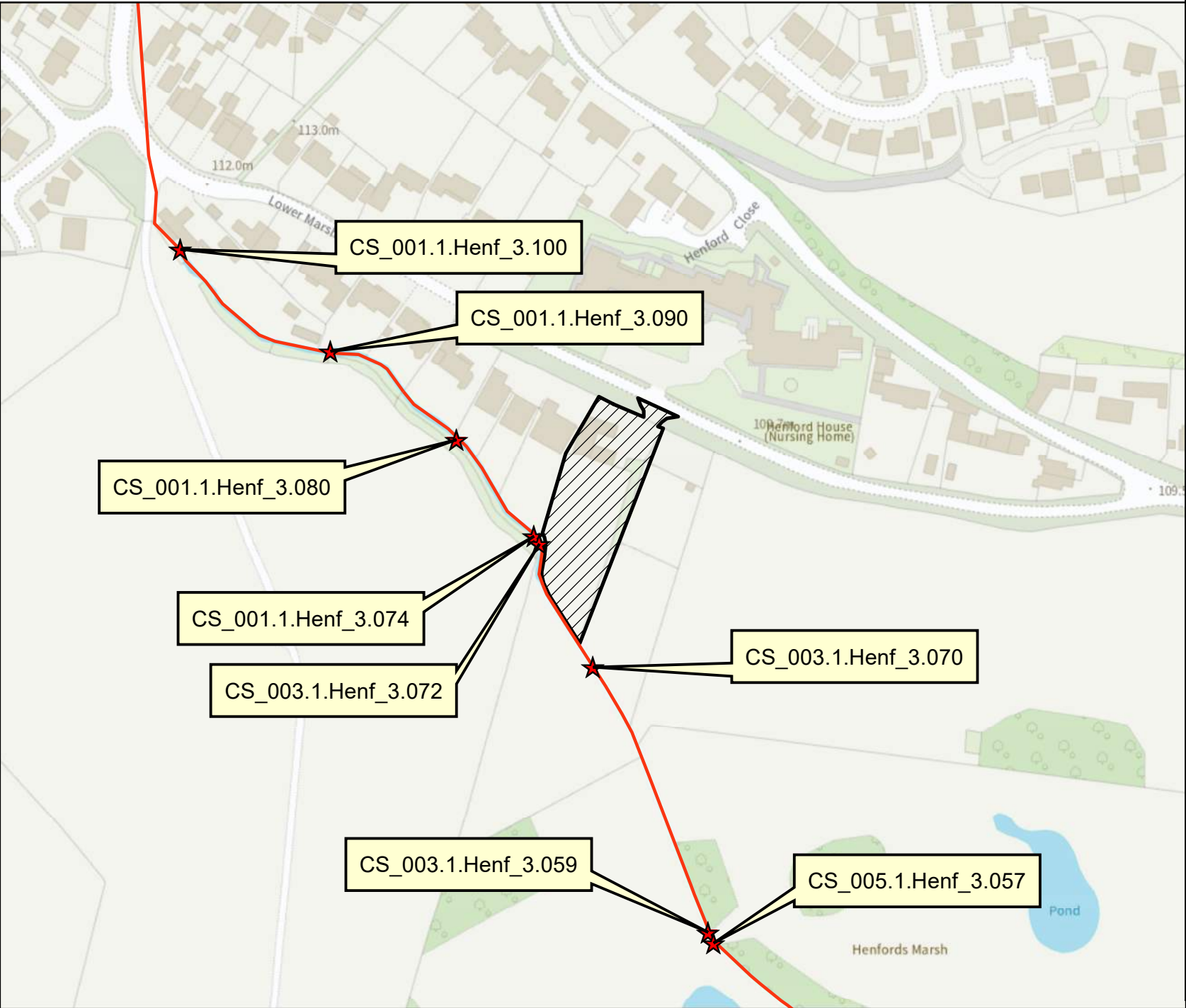
Email: wessexenquiries@environment-agency.gov.uk

www.environment-agency.gov.uk

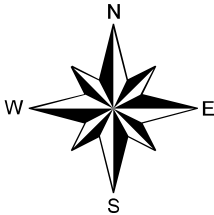
Environment Agency advice on FRAs:

<https://www.gov.uk/flood-risk-assessment-for-planning-applications#when-to-follow-standing-advice>

<https://www.gov.uk/government/publications/planning-applications-assessing-flood-risk>



Scale:1:2,000 At A3



Legend

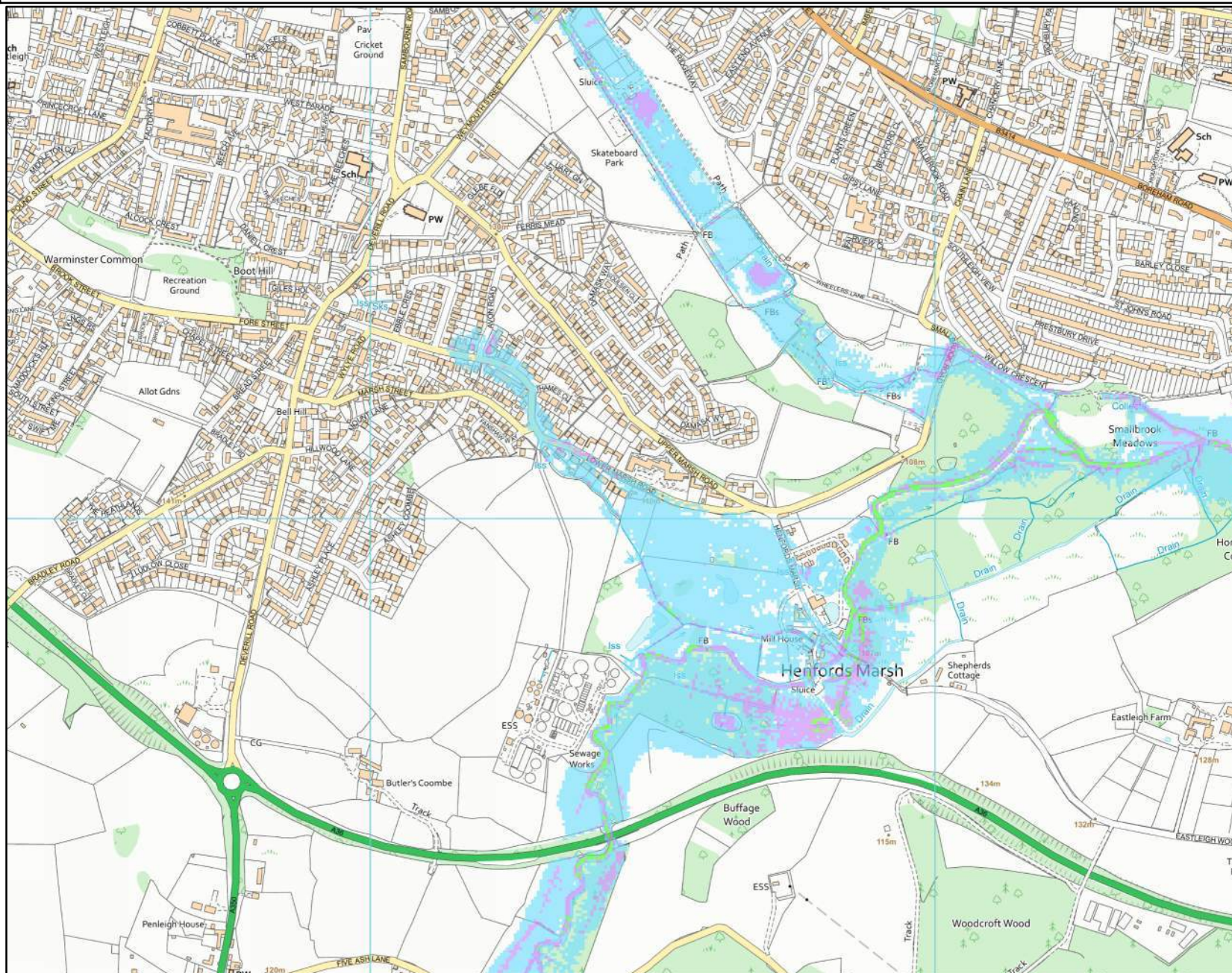
NODE_TYPE

- ★ 1D_RiverSection
- ★ 2D_RiverSection
- ★ Interpolate
- ★ Replicate
- Reservoir
- Statutory_Main_Rivers
- ▨ 382514-WX_site_boundary

Modelled Flood Level Nodes

A table that references the node locations/unique identifiers is also attached, giving associated flood levels, NGRs and further information for the river channel and model.

382514-WX - JFLOW Fluvial Water depths (m) Without Flood Defences. 100 year (1% AEP) centred on land at Warminster [387448,144049].
Created 13.11.2024



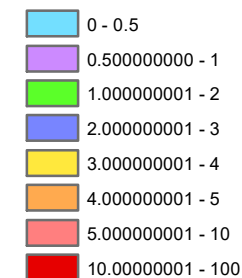
Scale 1:10,000



Legend

100yr JFLOW Depth

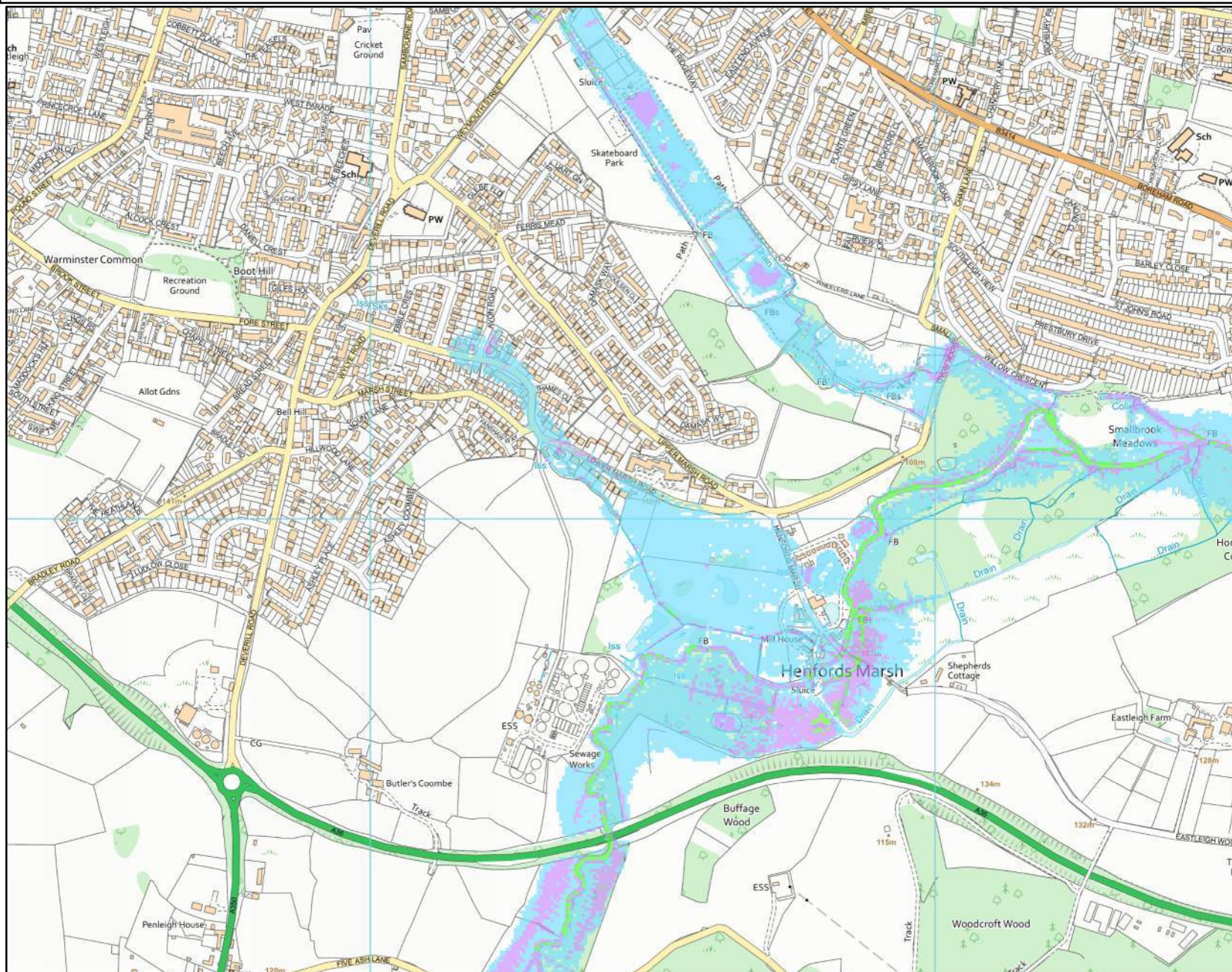
metres



Information Warning

We do not recommend the use of water depths/levels derived from JFLOW for site specific investigations such as Flood Risk Assessments.

382514-WX - JFLOW Fluvial Water depths (m) Without Flood Defences. 1000 year (0.1% AEP) centred on land at Warminster [387448,144049].
Created 13.11.2024



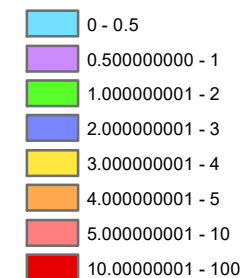
Scale 1:10,000



Legend

1000yr JFLOW Depth

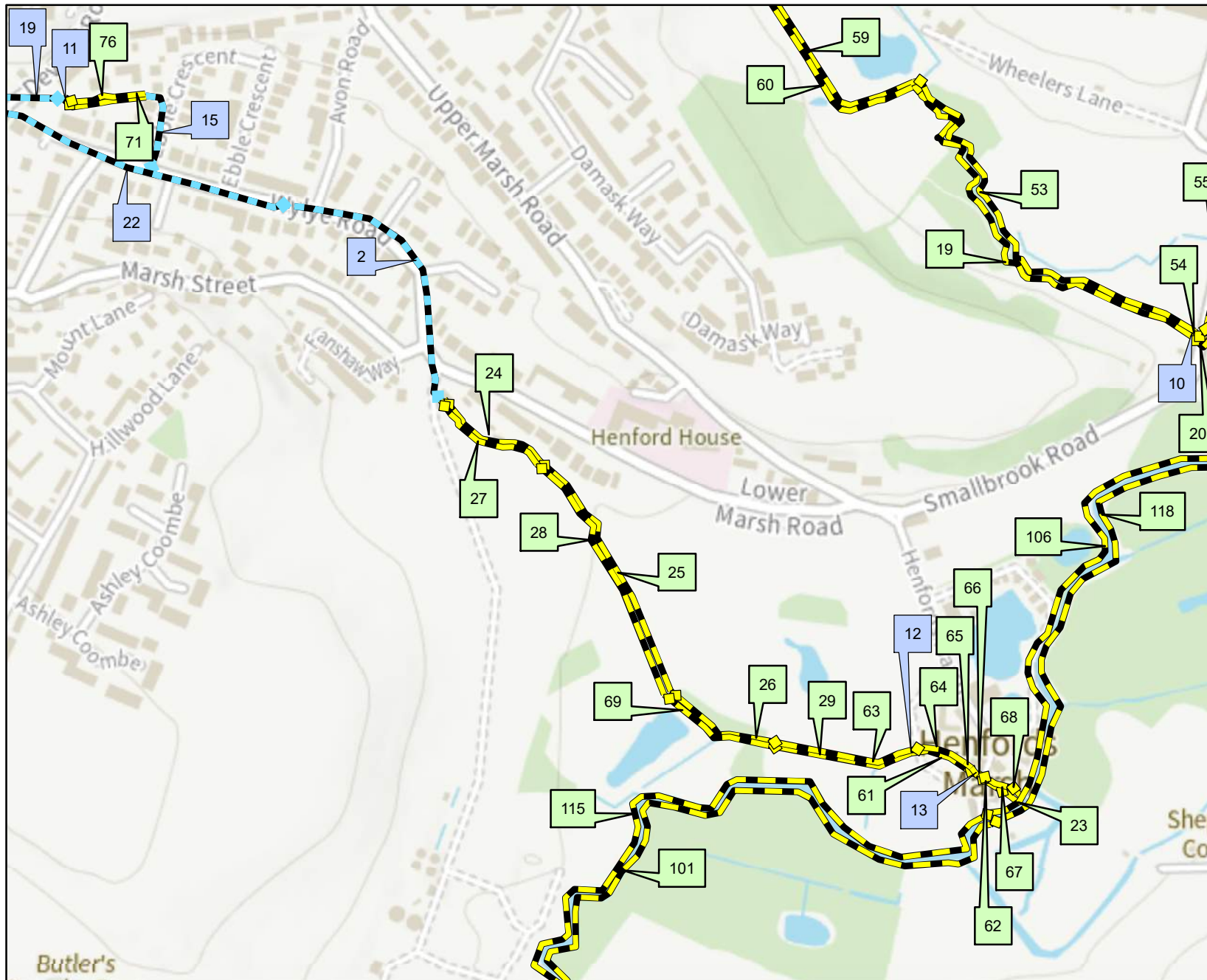
metres



Information Warning

We do not recommend the use of water depths/levels derived from JFLOW for site specific investigations such as Flood Risk Assessments.

Current Flood Defences centered on NGR ST 87447 44045 Created 31/10/2024 Ref: 382514-WX



Scale: 1:5,000



Legend

Defences

- Barrier Beach
- Beach
- Bridge Abutment
- Cliff
- Demountable Defence
- Dunes
- Embankment
- Engineered High Ground
- Flood Gate
- Natural High Ground
- Promenade
- Quay
- Spillway
- Wall

Culverts

- Simple Culvert
- Complex Culvert

This data has been extracted from the Asset Information Management System (AIMS OM) which was created to draw various data sources into one database and has been populated with information of varying quality.

Product 4 - AIMS Information382514-WXDate:31/10/2024

Map Ref	Asset ID	Asset Type	Right or left bank	Asset Description	Approx length (m)	Actual fluvial downstream crest level (mAOD)	Actual fluvial downstream crest level accuracy	Actual fluvial upstream crest level (mAOD)	Actual fluvial upstream crest level accuracy	Actual fluvial coastal crest level (mAOD)	Actual fluvial coastal crest level accuracy	NGR	Most recent inspection	Overall condition
19	119926	Natural High Ground	Right	NATURAL BANK	417.33	DNR	DNR	DNR	DNR	DNR	DNR	ST87774430	20/02/2020	3 - Fair
20	119927	Natural High Ground	Right	REVETMENT - SIMPLE - MASONRY - WALL	31.59	DNR	DNR	DNR	DNR	DNR	DNR	ST87984416	DNR	3 - Fair
23	120322	Natural High Ground	Right	REVETMENT - SIMPLE - TIMBER	23.16	DNR	DNR	DNR	DNR	DNR	DNR	ST87814376	29/09/2021	3 - Fair
24	120324	Natural High Ground	Left	REVETMENT - SIMPLE - MASONRY - WALL	108.03	DNR	DNR	DNR	DNR	DNR	DNR	ST87354407	29/09/2021	3 - Fair
25	120325	Natural High Ground	Left	NATURAL BANK	243.94	DNR	DNR	DNR	DNR	DNR	DNR	ST87444400	20/04/2012	2 - Good
26	120326	Natural High Ground	Left	NATURAL BANK	103.42	DNR	DNR	DNR	DNR	DNR	DNR	ST87554381	20/04/2012	2 - Good
27	120327	Natural High Ground	Right	REVETMENT - COMPLEX	110.01	DNR	DNR	DNR	DNR	DNR	DNR	ST87354407	29/09/2021	3 - Fair
28	120328	Natural High Ground	Right	NATURAL BANK	242.48	DNR	DNR	DNR	DNR	DNR	DNR	ST87444400	20/04/2012	2 - Good
29	120344	Natural High Ground	Right	NATURAL BANK	132.08	DNR	DNR	DNR	DNR	DNR	DNR	ST87704378	20/04/2012	2 - Good
53	121184	Natural High Ground	Left	NATURAL BANK	399.20	DNR	DNR	DNR	DNR	DNR	DNR	ST87784430	20/02/2020	3 - Fair
54	121186	Natural High Ground	Left	REVETMENT - SIMPLE - MASONRY - WALL	13.61	DNR	DNR	DNR	DNR	DNR	DNR	ST87984416	20/02/2020	3 - Fair
55	121187	Natural High Ground	Left	NATURAL BANK	70.73	DNR	DNR	DNR	DNR	DNR	DNR	ST87994420	20/02/2020	2 - Good
59	121368	Natural High Ground	Left	NATURAL BANK	223.58	DNR	DNR	DNR	DNR	DNR	DNR	ST87674437	20/02/2020	2 - Good
60	121369	Natural High Ground	Right	NATURAL BANK	224.52	DNR	DNR	DNR	DNR	DNR	DNR	ST87664437	20/02/2020	3 - Fair
61	121566	Natural High Ground	Right	NATURAL BANK	64.85	DNR	DNR	DNR	DNR	DNR	DNR	ST87764379	29/09/2021	2 - Good
62	121746	Natural High Ground	Right	REVETMENT - SIMPLE - MASONRY - WALL	20.67	DNR	DNR	DNR	DNR	DNR	DNR	ST87794377	29/09/2021	3 - Fair
63	121755	Natural High Ground	Left	NATURAL BANK	131.68	DNR	DNR	DNR	DNR	DNR	DNR	ST87704379	20/04/2012	2 - Good
64	121757	Natural High Ground	Left	NATURAL BANK	51.50	DNR	DNR	DNR	DNR	DNR	DNR	ST87744380	29/09/2021	2 - Good
65	121758	Natural High Ground	Left	REVETMENT - SIMPLE - MASONRY - WALL	8.00	DNR	DNR	DNR	DNR	DNR	DNR	ST87774378	29/09/2021	3 - Fair
66	121759	Natural High Ground	Left	WALL - NON-FLOOD - MASONRY	8.14	DNR	DNR	DNR	DNR	DNR	DNR	ST87784378	29/09/2021	3 - Fair
67	121761	Natural High Ground	Left	WALL - BUILDING - MASONRY	28.22	DNR	DNR	DNR	DNR	DNR	DNR	ST87804377	29/09/2021	3 - Fair
68	121762	Natural High Ground	Left	REVETMENT - SIMPLE - TIMBER	17.56	DNR	DNR	DNR	DNR	DNR	DNR	ST87814376	29/09/2021	3 - Fair
69	121763	Natural High Ground	Right	NATURAL BANK	109.43	DNR	DNR	DNR	DNR	DNR	DNR	ST87554381	20/04/2012	2 - Good
71	122232	Natural High Ground	Right	NATURAL BANK	76.36	DNR	DNR	DNR	DNR	DNR	DNR	ST86994438	25/01/2024	3 - Fair
76	122445	Natural High Ground	Left	NATURAL BANK	73.69	DNR	DNR	DNR	DNR	DNR	DNR	ST86994438	25/01/2024	3 - Fair
101	36184	Natural High Ground	Right	NATURAL BANK	764.21	DNR	DNR	DNR	DNR	DNR	DNR	ST87484372	12/12/2008	2 - Good
106	37359	Natural High Ground	Left	NATURAL BANK	713.62	DNR	DNR	DNR	DNR	DNR	DNR	ST87894397	24/11/2011	2 - Good

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115	59338	Natural High Ground	Left	NATURAL BANK	782.30	DNR	DNR	DNR	DNR	DNR	DNR	ST87454367	12/12/2008	2 - Good
118	68116	Natural High Ground	Right	NATURAL BANK	710.25	DNR	DNR	DNR	DNR	DNR	DNR	ST87914397	24/11/2011	2 - Good

Map Ref	Asset ID	Asset Type	Right or left bank	Asset Description	Approx length (m)	Actual fluvial downstream crest level (mAOD)	Actual fluvial downstream crest level accuracy	Actual fluvial upstream crest level (mAOD)	Actual fluvial upstream crest level accuracy	Actual fluvial coastal crest level (mAOD)	Actual fluvial coastal crest level accuracy	NGR	Most recent inspection	Overall condition
2	120323	Simple Culvert	DNR	CULVERT - WATERCOURSE - CONCRETE - TWIN PIPE	257.35	DNR	DNR	DNR	DNR	DNR	DNR	ST87294422	25/01/2024	3 - Fair
10	121185	Simple Culvert	DNR	CULVERT - MINOR ROAD - CONCRETE - ARCHED	18.04	DNR	DNR	DNR	DNR	DNR	DNR	ST87984417	21/01/2022	3 - Fair
11	121202	Simple Culvert	DNR	CULVERT - WATERCOURSE - CONCRETE	8.51	DNR	DNR	DNR	DNR	DNR	DNR	ST86974438	25/01/2024	4 - Poor
12	121756	Simple Culvert	DNR	CULVERT - MINOR ROAD - CONCRETE	2.96	DNR	DNR	DNR	DNR	DNR	DNR	ST87724380	27/09/2021	3 - Fair
13	121760	Simple Culvert	DNR	CULVERT - MINOR ROAD - MASONRY - ARCHED	5.92	DNR	DNR	DNR	DNR	DNR	DNR	ST87784378	27/09/2021	3 - Fair
15	122234	Simple Culvert	DNR	CULVERT - WATERCOURSE - CONCRETE - TWIN PIPE	82.81	DNR	DNR	DNR	DNR	DNR	DNR	ST87054437	25/01/2024	3 - Fair
19	168563	Simple Culvert	DNR	CULVERT - WATERCOURSE - CONCRETE	56.75	DNR	DNR	DNR	DNR	DNR	DNR	ST86914438	25/01/2024	4 - Poor
22	170237	Simple Culvert	DNR	CULVERT - CONCRETE	285.92	DNR	DNR	DNR	DNR	DNR	DNR	ST87034432	25/01/2024	4 - Poor

Notes

* Overall Condition has been taken from the most recent inspection

* Inspections are of a purely visual nature and do not necessarily reflect the true condition of the asset

* Condition: 1 = very good, Condtion 2 = good, Condition 3 = fair, Condition 4 = poor, Condition 5 = very poor

* Crest level accuracy: 1 = ± 0.01 to 0.05m, 2 = ± 0.05 to 0.15m, 3 = ± 0.15 to 0.75m, 4 = ± 0.75 or greater

TITLE Warminster integrated model 2020
 MODEL DATE 01/12/2020
 SOFTWARE Infoworks ICM

SCENARIO Defended

NODE	CS_001.1.Henf_3.074	CS_001.1.Henf_3.080	CS_001.1.Henf_3.090	CS_001.1.Henf_3.100	CS_003.1.Henf_3.059	CS_003.1.Henf_3.070	CS_003.1.Henf_3.072	CS_005.1.Henf_3.057
WATERCOURSE	R Were & Cannimore Stream	R Were & Cannimore Stream	R Were & Cannimore Stream	R Were & Cannimore Stream	R Were & Cannimore Stream	R Were & Cannimore Stream	R Were & Cannimore Stream	R Were & Cannimore Stream
2YR Level	109.03	109.44	110.49	111.50	108.34	108.48	108.95	107.71
2YR Flow	0.40	0.40	0.39	0.36	0.45	0.43	0.43	0.45
5YR Level	109.07	109.46	110.50	111.51	108.42	108.54	108.97	107.75
5YR Flow	0.45	0.45	0.44	0.38	0.46	0.49	0.49	0.46
10YR Level	109.10	109.47	110.51	111.52	108.44	108.56	108.98	107.78
10YR Flow	0.48	0.48	0.46	0.39	0.47	0.53	0.52	0.47
20YR Level	109.14	109.48	110.52	111.52	108.46	108.59	109.00	107.80
20YR Flow	0.53	0.53	0.50	0.41	0.47	0.58	0.57	0.47
20YR 20%CC Level	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
20YR 20%CC Flow	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
25YR Level	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
25YR Flow	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
30YR Level	109.16	109.49	110.53	111.52	108.47	108.61	109.01	107.82
30YR Flow	0.56	0.56	0.53	0.41	0.47	0.61	0.61	0.47
50YR Level	109.19	109.50	110.54	111.53	108.49	108.63	109.02	107.84
50YR Flow	0.59	0.59	0.55	0.41	0.47	0.65	0.64	0.47
75YR Level	109.22	109.51	110.54	111.53	108.50	108.64	109.03	107.85
75YR Flow	0.63	0.62	0.58	0.42	0.47	0.68	0.67	0.47
100YR Level	109.26	109.52	110.55	111.53	108.51	108.66	109.05	107.86
100YR Flow	0.67	0.67	0.61	0.42	0.47	0.72	0.72	0.47
100YR 20%CC Level	109.48	109.59	110.60	111.53	108.55	108.72	109.11	107.91
100YR 20%CC Flow	0.89	0.89	0.74	0.43	0.47	0.94	0.93	0.47
100YR 30%CC Level	109.50	109.60	110.60	111.53	108.55	108.73	109.11	107.91
100YR 30%CC Flow	0.91	0.90	0.75	0.43	0.47	0.95	0.94	0.47
100YR 40%CC Level	109.69	109.74	110.64	111.54	108.60	108.82	109.20	107.98
100YR 40%CC Flow	1.22	1.21	0.96	0.44	0.47	1.26	1.25	0.47
100YR 85%CC Level	109.70	109.75	110.65	111.54	108.60	108.83	109.20	107.98
100YR 85%CC Flow	1.25	1.24	0.98	0.44	0.47	1.29	1.28	0.47
200YR Level	109.44	109.57	110.59	111.53	108.55	108.71	109.10	107.91
200YR Flow	0.85	0.85	0.71	0.43	0.47	0.90	0.89	0.47
200YR 20%CC Level	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD

382514-WX selected nodes data extract

200YR 20%CC Flow	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
500YR Level	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
500YR Flow	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
1000YR Level	109.83	109.87	110.70	111.56	108.65	108.94	109.31	108.06
1000YR Flow	1.70	1.69	1.31	0.45	0.47	1.77	1.73	0.46
1000YR 20%CC Level	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
1000YR 20%CC Flow	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
TIDE 200YR	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
TIDE 1000YR	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
Eastings	387441	387412	387365	387309	387506	387463	387443	387508
Northings	144005	144041	144074	144112	143857	143956	144002	143853

SCENARIO

Undefended

NODE	CS_001.1.Henf_3.074	CS_001.1.Henf_3.080	CS_001.1.Henf_3.090	CS_001.1.Henf_3.100	CS_003.1.Henf_3.059	CS_003.1.Henf_3.070	CS_003.1.Henf_3.072	CS_005.1.Henf_3.057
WATERCOURSE	R Were & Cannimore Stream	R Were & Cannimore Stream	R Were & Cannimore Stream	R Were & Cannimore Stream	R Were & Cannimore Stream	R Were & Cannimore Stream	R Were & Cannimore Stream	R Were & Cannimore Stream
2YR Level	109.03	109.45	110.49	111.50	108.33	108.48	108.95	107.71
2YR Flow	0.40	0.40	0.39	0.36	0.45	0.43	0.43	0.45
5YR Level	109.07	109.46	110.50	111.51	108.41	108.54	108.97	107.75
5YR Flow	0.45	0.45	0.44	0.38	0.46	0.49	0.49	0.46
10YR Level	109.10	109.47	110.51	111.52	108.43	108.56	108.98	107.77
10YR Flow	0.48	0.48	0.46	0.39	0.47	0.53	0.52	0.47
20YR Level	109.14	109.48	110.52	111.52	108.46	108.59	109.00	107.80
20YR Flow	0.53	0.53	0.51	0.41	0.47	0.58	0.57	0.47
20YR 20%CC Level	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
20YR 20%CC Flow	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
25YR Level	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
25YR Flow	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
30YR Level	109.16	109.49	110.53	111.52	108.47	108.61	109.01	107.81
30YR Flow	0.56	0.56	0.53	0.41	0.47	0.61	0.61	0.47
50YR Level	109.21	109.50	110.54	111.53	108.49	108.63	109.03	107.83
50YR Flow	0.61	0.61	0.56	0.42	0.47	0.66	0.66	0.47
75YR Level	109.29	109.53	110.56	111.53	108.51	108.66	109.06	107.86
75YR Flow	0.71	0.70	0.61	0.42	0.47	0.75	0.75	0.47
100YR Level	109.38	109.55	110.58	111.53	108.53	108.69	109.08	107.88
100YR Flow	0.79	0.79	0.67	0.42	0.47	0.84	0.83	0.47
100YR 20%CC Level	109.63	109.69	110.62	111.54	108.58	108.78	109.16	107.95
100YR 20%CC Flow	1.07	1.06	0.85	0.43	0.47	1.11	1.10	0.47
100YR 30%CC Level	109.63	109.69	110.62	111.54	108.58	108.78	109.16	107.95
100YR 30%CC Flow	1.07	1.06	0.86	0.43	0.47	1.12	1.11	0.47
100YR 40%CC Level	109.73	109.77	110.66	111.54	108.61	108.85	109.22	108.00
100YR 40%CC Flow	1.33	1.32	1.03	0.44	0.47	1.38	1.36	0.47
100YR 85%CC Level	109.73	109.78	110.66	111.54	108.61	108.85	109.23	108.00
100YR 85%CC Flow	1.35	1.34	1.04	0.44	0.47	1.39	1.38	0.47
200YR Level	109.62	109.67	110.62	111.54	108.57	108.77	109.15	107.94
200YR Flow	1.04	1.03	0.83	0.43	0.47	1.08	1.07	0.47
200YR 20%CC Level	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
200YR 20%CC Flow	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
500YR Level	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
500YR Flow	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
1000YR Level	109.85	109.89	110.71	111.56	108.65	108.96	109.32	108.07

382514-WX selected nodes data extract

1000YR Flow	1.76	1.75	1.34	0.45	0.46	1.84	1.79	0.46
1000YR 20%CC Level	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
1000YR 20%CC Flow	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
TIDE 200YR	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
TIDE 1000YR	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD
Eastings	387441	387412	387365	387309	387506	387463	387443	387508
Northings	144005	144041	144074	144112	143857	143956	144002	143853

Level of confidence	Moderate	The model was produced to assess our flood risk management assets and the results are fit for this purpose. We have MODERATE confidence in its input data, and subsequently its results. The reason that we have MODERATE confidence in the model and its results is because the model requires verification against a known flood event. You will need to contact our Partnership and Strategic Overview Team to discuss whether the flood levels from this model are suitable for your FRA or whether they require you to carry out further work to update the modelling.
NMD	No Modelled Data	
UNITS	LEVELS:	mAOD
	FLOW:	cumecs